

THE AMERICAN School Board Journal

Founded March 1891 by WILLIAM GEORGE BRUCE

Volume LVIII, Number 5

MAY, 1919

Subscription, \$2.00 the Year



HELP! THE SCHOOL CHILDREN HAVE OUTGROWN THE PLANTS.

The Distaff Side of School Administration

A [Superintendent's Wife

A few evenings ago I accompanied my husband to a Parent-Teachers meeting in a neighboring town. After the formal program the president pro tem called for impromptu discussions. Among those who spoke was a man who had served on the school board for many years; another who had had experience with schools in both England and America; and one whose whole life had been given to school work. The most telling speech of the evening, the one that went home in a way that will at once react favorably on the schools, was made by a young woman member of the board. She was the first one called upon, without a word of warning, and I know she was disconcerted because I sat next to her and for a minute or two I could hear the short, quick-drawn breaths between her words. After a few sentences she regained her poise and her words were wonderfully effective,—not because she was the ablest speaker, not because she knows most about schools, but because she knows *children*, after all the *raison d'être* for all our school machinery.

She knows children because she has three of her own, and by that same token, she knows mothers, and the way to talk to mothers, as no man, however capable, can know them. When she was so unexpectedly called upon she rose and by a few non-committal sentences, she circled till she had gotten her bearings, then she started out, and no carrier pigeon ever went straighter home.

She spoke of the time lost when the schools were closed for five weeks during an epidemic of "flu" and told the audience (mostly women) that the work could yet be made up before the end of the year if the mothers helped. With tactful clearness she told them how much it would mean if each one of the forty mothers represented in a given schoolroom would see to it that her own child, unless ill, went to school every day, and *on time*. She touched upon the subject of proper breakfasts and of keeping the children tidy; she emphasized the importance of home work, the duty of seeing that it is carefully done and the necessity for providing a comfortable place where children can study without interruption. She said, "The teachers do good work for your children; but they can not do their *best* work unless you help."

Then she spoke for the exercise of patience when children bring home stories about school, the justice of hearing both sides before passing judgment, and the mutual benefit that nearly always results when mother and teacher become acquainted. She told them too that the word of appreciation was seldom spoken, while nearly every one was quick to voice the word of criticism.

"I know how puzzled I sometimes am with my three," she said, "and when I think of a teacher with forty, from forty different homes, I wonder that she doesn't break down in a week. And when I consider that during the school day she can give only about seven minutes to each child I don't see how she can teach them anything at all. I have a hard time teaching my three a few Bible verses."

She reached the heart and the sympathies of every mother there, because she spoke out of her own heart and her own experiences. No man could have done it so effectively.

As my thoughts have gone back to that meeting, I have wondered more than ever, why we use so few women on school boards. "Two little heads are better than one" and surely two viewpoints are better than one. The most conscientious man trustee that ever labored for the

good of childhood cannot bring to some of the problems the intimate understanding that a woman can.

In nearly every home the father and the mother divide responsibilities; the father goes to business and provides the materials, the mother prepares, supervises, and adjusts them to the needs of the children. A place financed and managed by two men, however faithful, lacks much of what we call the home touch. Does it not seem as if the complementary faculties should be utilized in school also?

Men are not expected to know how to knit the "Kitchener toe"—yet the Kitchener toe was an important item in winning the war, important enough to be named for a man.

It would be a mistake to have a board composed entirely of women, perhaps a greater mistake than to have it made up entirely of men. In the more abstract and technical business transactions, in dealing with contractors, book firms, boards of estimates, and the like, the experience of men of affairs is needed; but in matters that more directly affect the child a woman's judgment is surely an asset. If Anna comes home from school every day with a headache because the ventilating system is out of repair; if she comes home every day with a heartache because she has an unkind teacher; if she is seated so near the stove that she is nearly toasted, or so far away that she is nearly frosted; if she is in love with school; or if she is discouraged and down-hearted, which one is more interested and more in a position to act wisely in the matter, the girl's mother who sees it all intimately, or the father? Or some other man? The school board is supposed to represent the community in the interests of that community's children. Which group knows the needs of those children better, the men or the women? In the convention at Chicago I heard a teacher say before a group of schoolmen, "We know the needs of these children because we work with them. The child is ours, the system is yours." All of which is even more true of mothers.

Men are inclined to deal with these things in an impersonal way. They order the ventilating fans fixed and then dismiss the matter from their minds. But the mechanic is busy, the janitor indifferent, the fans are neglected, and Anna's mother sees her child suffer every day.

An unsympathetic teacher is criticised: Quite likely a board member laughs and says, "She's only making them toe the mark a bit." Only the mothers know that she is making some of the children miserable and unhappy, arousing all the fight there is in some, and driving others out of school.

A good teacher is under discussion and the board allows another district to take her for a matter of ten dollars a month. They are looking at the budget. The mothers realize what their children are losing. Women on the board would turn the thoughts of the men more directly toward the child and would, on the women's side, tend toward an intelligent understanding of the school budget, taxes, public criticism, and some of the other influences that are brought to bear on a long-suffering board,—a very beneficial reaction.

A woman member has an intimate knowledge of the child's needs, she can make a mother's appeal to mothers, and, if she is the right kind of woman, she can be a great help to teachers. She can see their problems from a woman's viewpoint.

Christmas, 1918, came on Wednesday. One

of our large cities, with hundreds of teachers whose homes are far away, voted a vacation that included the two days after New Years. The teachers were required to teach until 3 P. M. the day before Christmas, then get the best train accommodations they could, and in many instances travel all night in the holiday crush, in order to get home for some part of Christmas Day! No man on that board could possibly know what it would have meant to those girls if, instead of the two days after New Years, they had had the two days before Christmas, closing Friday afternoon. That would have allowed time for a little last shopping, the packing, escape from the unspeakable crowds in travelling, and a bit of rest before Christmas Day.

During this same holiday time another board suddenly decided to reopen their schools two days earlier than they had announced. A telegram was sent to each of the fifty teachers. Some of them were away from home, some had guests, some had the dressmaker in the house; all personal matters had to be swept aside in one breathless rush for those two days. Were the two days, under those circumstances, worth while?

Perhaps the thought has come up that we are running our schools for the *children*, not for the teacher's convenience and comfort. The reply to that was given by a little teacher before a group of schoolmen a few weeks ago. "To make the child comfortable and happy we must have some comfort and happiness ourselves."

Have you ever seen a happy home where the mother was unhappy?

Not infrequently men are elected to the board without much thought as to fitness. Almost any one will do. I have seen communities elect for the control of their children's welfare, men who are so narrow and crabbed that these same people would not entrust their *crops* or their *livestock* to that same judgment, or lack of judgment. In eastern localities especially, women board members are still a novelty, something out of the ordinary, and as a natural result, only the most capable women are nominated.

Of course some women will be a disappointment. So are some men.

The best women will sometimes err in judgment. So do the best men.

The National Education Association has had women presidents, we have at least eight women among our state Superintendents of public instruction, Chicago had a woman at the head of its system for a number of years, while some of the middle and western states number as many women as men among their county superintendents. The fact that the number is increasing year by year proves that, as a class, they make good. Fifty per cent of our pupils and ninety per cent of our teachers belong to the Distaff Side.

Some years ago, when women automobile drivers were not as numerous as they are now, an Englishman said to me in a critical tone: "What do you think of a woman running an automobile?"

"It depends on the woman," I replied. "I have a neighbor, a calm, quiet woman, with whom I feel as safe as with any man I have ever seen at the wheel. On the other hand you know men with whom you would not trust your life for one mile."

It depends on the woman.

THE ABILITY OF A CITY TO FURNISH FUNDS FOR THE ADVANCEMENT OF EDUCATION WITHIN ITS BORDERS

N. L. Engelhardt, New York City

As education is at present administered in the United States, the educational opportunities offered to the children of any city are in large measure limited to the ability of that community to pay the price that such opportunities demand. The measure of a community's attitude toward education is perhaps best expressed in terms of financial comparisons with other communities which have had approximately the same responsibilities. It is recognized in such comparisons that a low ranking may not always indicate niggardliness nor disregard for community needs. Such ranking may indicate that achievement and economy have gone hand in hand. This study outlines the problems confronting a superintendent of schools when making an analysis of the ability of his city to pay for additional educational opportunities. For the purpose of the study, the school system of the city of Paterson, N. J., was chosen as the system, the financial problems of which were to be analyzed.

Comparisons with other cities were made on two bases. For detailed statements of comparison with Paterson a group of 33 cities was selected. The cities chosen are the cities north of the Mason-Dixon Line and the Ohio River and east of the Mississippi River, which in 1910 had a population of 70,000 to 200,000, inclusive. Paterson with a population of 125,000 ranks seventh in population in the group selected. It was deemed more equitable to locate Paterson centrally in respect to the population of the cities selected, rather than to make her the median city of 25 cities with respect to rank. The latter method would involve cities whose population was over 200,000, some of which would have a population twice as great as Paterson.

As a more comprehensive study, significant Paterson financial data covering a period of years have been compared with similar data from the median of all American cities above 30,000 in population. The cities falling into the first group with their population according to the 1910 census are Columbus, O.; 181,511; Toledo, O.; 168,497; Worcester, Mass., 145,986; Syracuse, N. Y., 137,249; New Haven, Conn.; 133,605; Scranton, Pa., 129,867; Paterson, N. J., 125,600; Fall River, Mass., 119,295; Dayton, O., 116,577; Grand Rapids, Mich., 112,571; Lowell, Mass., 106,294; Cambridge, Mass., 104,839; Bridgeport, Conn., 102,054; Albany, N. Y., 100,253; Hartford, Conn., 98,915; Trenton, N. J., 96,815; New Bedford, Mass., 96,652; Reading, Pa., 96,071; Camden, N. J., 94,538; Lynn, Mass., 89,336; Springfield, Mass., 88,926; Wilmington, Del., 87,411; Lawrence, Mass., 85,892; Yonkers, N. Y., 79,803; Youngstown, O., 79,066; Somerville, Mass., 77,236; Troy, N. Y., 76,813; Utica, N. Y., 74,419; Elizabeth, N. J., 73,409; Waterbury, Conn., 73,141; Schenectady, N. Y., 72,826; Hoboken, N. J., 70,324; Manchester, N. H., 70,063.

Real wealth per capita may be regarded as the first item on which comparisons should be made.

In Table I may be found the total true value of property for the selected list of cities, the per capita true valuation, and the tax levy per \$1000 of true valuation, together with the rankings of the cities in each of the three bases. The data shown are for the year 1916. The total assessed valuations, and the ratio between assessed and real property values as given in the Financial Statistics for Cities for 1916, were utilized in securing the total true valuation

figures. Paterson ranks seventh in population, fifteenth in total true valuation, and seventeenth on the basis of the tax levy per \$1000 of true property valuation. Paterson is below the median city of the group on the basis of each unit represented in Table I, and is found in the fourth quartile on the basis of per capita true valuation. As compared on this last item with all cities above 30,000,¹ Paterson ranks among the lowest thirty cities out of a total of 213. In other words, the great majority of the larger cities in the United States have available per capita more property (under the present system of taxation) for the support of education than has the city of Paterson.

The tax levy per \$1000 of real property values

of the period 1909-1916, shows that the 1916 rank is far better than that of any of the other six years. In other words, the maximum taxing privilege has not been reached in Paterson as measured by what the majority of the selected group of cities has found it possible to accomplish. Paterson's rank in the group of 33 cities has been 23rd, 27th, 25th, 26th, 30th, 25th, and 17th for the years 1909, 1910, 1911, 1912, 1913, 1915, and 1916 respectively.

Paterson's relative position as compared with all cities above 30,000 may be seen in Table III. The medians, 25 percentiles, and 75 percentiles of all the cities are shown for seven years, together with Paterson's figures for the same period.

TABLE I. WEALTH AND TAX RATE OF PATERSON COMPARED WITH 32 OTHER CITIES.*

Name of City	Rank in Population	Total True Valuation	Rank	True Value Per Capita	Rank	Levy per \$1000 True Valuation	Rank
Columbus, Ohio	1	\$282,151,320	1	\$1345	6	\$13.60	2
Toledo, Ohio	2	268,710,280	2	1430	4	15.16	5
Worcester, Mass.	3	180,061,080	5	1117	12	20.40	16
Syracuse, N. Y.	4	154,806,744	11	926	18	27.77	29
New Haven, Conn.	5	161,750,512	9	1068	13	22.23	23
Scranton, Pa.	6	105,224,770	18	730	31	17.88	8
PATERSON, N. J.	7	111,406,360	15	796	26	20.43	17
Fall River, Mass.	8	107,153,345	17	823	23	23.00	26
Dayton, Ohio	9	171,481,890	6	1366	5	13.40	1
Grand Rapids, Mich.	10	163,026,822	8	1280	7	17.39	7
Lowell, Mass.	11	93,588,602	19	829	24	20.80	18
Cambridge, Mass.	12	130,110,820	14	1161	10	23.00	26
Bridgeport, Conn.	13	141,417,321	12	1166	9	19.84	15
Albany, N. Y.	14	134,863,434	13	1144	11	24.02	27
Hartford, Conn.	15	226,030,600	3	1272	8	17.95	9
Trenton, N. J.	16	86,029,714	22	749	29	22.80	25
New Bedford, Mass.	17	111,392,472	16	960	15	23.00	26
Reading, Pa.	18	84,834,624	24	706	28	13.60	2
Camden, N. J.	19	75,233,552	29	683	33	19.78	14
Lynn, Mass.	20	91,840,310	20	908	10	21.80	22
Springfield, Mass.	21	190,365,105	4	1842	1	18.20	10
Wilmington, Del.	22	82,589,225	28	881	21	21.30	20
Lawrence, Mass.	23	82,769,058	25	842	22	18.80	11
Yonkers, N. Y.	24	161,525,072	10	1602	2	20.97	19
Youngstown, Ohio	25	161,506,580	7	1574	3	14.00	4
Somerville, Mass.	26	77,444,585	28	905	20	21.70	21
Troy, N. Y.	27	68,253,120	33	808	25	32.00	30
Utica, N. Y.	28	80,962,253	27	784	30	25.55	28
Elizabeth, N. J.	29	69,718,334	32	794	27	19.40	13
Waterbury, Conn.	30	89,696,144	21	1054	14	18.91	12
Schenectady, N. Y.	31	74,271,327	30	720	32	37.53	31
Hoboken, N. J.	32	74,157,169	31	950	17	22.34	24
Manchester, N. H.	33	85,217,737	23	953	16	15.90	6

*Data from Financial Statistics of Cities, 1916, Table 32.

shows that for 1916 Paterson failed to tax at a rate as high as that of sixteen other cities in the list.

The figures for one year may be regarded as dependent upon too many chance influences to be accepted without supporting evidence. Table II, which presents identical data for seven years

¹See tables in A School Building Program for Cities, N. L. Engelhardt, Ph. D., Bureau of Publications, Teachers College, Columbia University, New York City.

TABLE III. TAX RATES PER \$1000 OF ESTIMATED TRUE VALUE OF PROPERTY FOR THE CITIES ON THE 25, 50, AND 75 PERCENTILES OF THE DISTRIBUTION OF ALL CITIES OVER 30,000, COMPARED WITH PATERSON, 1909-1916.*

1909	1910	1911	1912	1913	1915	1916	
Paterson	12.19	11.33	11.27	11.42	11.00	12.83	14.19
25 Percentiles	10.10	10.52	10.10	10.05	0.23	10.19	10.58
Medians	12.14	12.91	12.42	12.33	12.04	12.90	13.23

75 Percentiles, 15.51 15.80 15.39 14.97 14.79 16.98 16.00

*Data for 1914 not available.

TABLE II. TAX LEVIES OF PATERSON COMPARED WITH 32 OTHER CITIES.

Rank of Cities in Population	Levy per \$1000 true valuation for each of 7 years. (Levy for all purposes).													
	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
1	\$16.02	12	\$15.09	17	\$10.92	29	\$10.82	30	\$10.93	31	\$10.93	32	\$13.60	32
2	16.73	7	16.70	8	11.59	24	11.08	28	11.08	29	10.74	31	15.16	29
3	14.14	19	14.01	20	14.72	17	14.80	14	14.80	15	16.87	13	20.40	18
4	18.02	2	17.58	4	16.58	10	14.14	18	14.14	18	16.57	16	27.77	3
5	14.88	17	16.00	13	16.00	14	14.51	16	14.51	16	17.25	11	22.23	11
6	10.45	29	11.34	26	11.11	26	12.33	22	12.33	23	12.06	26	17.88	26
7	12.19	23	11.33	27	11.27	25	11.42	26	11.00	30	12.83	23	20.43	17
8	16.25	11	15.84	14	16.41	12	16.48	7	16.48	7	20.06	4	23.00	6
9	14.23	18	14.32	19	11.02	27	10.40	32	10.40	32	11.11	30	13.40	33
10	10.68	27	11.31	28	11.01	28	11.29	27	12.76	22	16.58	15	17.39	27
11	17.30	5	17.02	6	16.47	11	16.41	9	16.41	9	18.78	7	20.80	16
12	17.52	3	18.61	3	17.70	4	17.61	4	18.01	4	18.61	8	23.00	7
13	15.12	15	15.71	15	16.87	7	14.70	15	15.81	10	17.60	10	19.84	9
14	15.39	14	15.39	16	18.34	3	14.93	13	14.93	14	16.80	14	24.02	5
15	16.68	8	16.69	9	17.10	6	15.94	10	15.73	11	15.79	17	17.95	25
16	9.66	31	10.70	31	12.78	21	14.30	17	14.37	17	14.72	19	22.80	9
17	16.56	9	16.14	11	15.88	15	16.77	5	16.77	5	20.04	5	23.00	8
18	10.50	28	10.50	30	10.50	31	10.50	31	11.25	28	11.25	29	13.00	32
19	13.10													

School Board Journal

It becomes evident that Paterson has not been raising as large a tax on every \$1000 of estimated true value of property as had the majority of cities up to the year 1916. In 1916 Paterson is found slightly above the median city in the distribution. It is hoped that this ranking will be maintained for the years to come, and even that Paterson may be permitted soon to find herself in the first quartile of such a distribution. Even tho Paterson may not have a large per capita valuation, each existing \$1000 of property valuation should be required to perform as great a service as has been required of it in other progressive communities, when the demand is as apparent as it appears in Paterson.

TABLE IV. PER CENT OF CITY EXPENSES DEVOTED TO SCHOOLS IN ALL CITIES OF 30,000 OR OVER.

(1908-1916.)

Per cent	Number of cities devoting specified per cent of expenses to schools in:						
	1908	1910	1911	1912	1913	1915	1916
10.0-14.9	...	...	2	1	3	1	1
15.0-19.9	2	3	3	4	2	4	4
20.0-24.9	16	16	18	19	20	12	12
25.0-29.9	18	22	26	28	30	28	30
30.0-34.9	42	44	49	44	43	37	34
35.0-39.9	31	43	37	41	40	40	38
40.0-44.9	28	25	33	33	33	33	39
45.0-49.9	12	19	21	19	17	24	26
50.0-54.9	4	6	4	6	9	14	18
55.0-59.9	...	...	...	...	2	...	...
60.0-64.9	...	...	...	...	1	2	...
Total	153	178	193	195	199	204	213
25 Percentile ^a	30.2	30.3	29.9	29.4	29.2	29.4	29.8
75 Percentile ^a	39.2	41.2	40.8	41.1	41.2	42.6	43.9
Medium	34.6	35.4	34.8	35.2	35.2	35.9	36.9
Paterson	39.4	38.9	36.3	38.7	38.6	39.3	40.9

^aCompiled from Financial Statistics of Cities of the above years. No report published in 1914.

The percentiles were calculated from a finer grouping.

Altho Paterson has not found it feasible to tax herself as much as many other cities have done for the common good, the fact that Paterson lies between the city on the fifty and seventy-five percentiles of the distribution of all cities above 30,000 in the percentage of entire city expenses devoted to schools is significant from the educational point of view. Paterson is at least devoting to education as large a percentage of her entire city appropriations as sixty to

TABLE V. TOTAL CITY AND SCHOOL PER CAPITA EXPENDITURES FOR MAINTENANCE AND THEIR PER-CENTILE RELATIONSHIPS IN 33 CITIES.^b

Column	Per Capita Expenditure for city maintenance		Per Capita Expenditures for Schools		Per cent of Entire City Expenditures Devoted to Schools		Rank
	I	II	III	IV	V	VI	
Columbus	15.43	14	5.63	10	36.5	13	
Toledo	13.83	22	5.49	12	39.7	8	
Worcester	20.24	4	7.15	4	35.3	15.5	
Syracuse	16.96	7	4.76	21	28.1	31	
New Haven	16.23	10	6.22	6.5	38.3	9	
Scranton	10.76	31	4.72	23	43.9	1	
PATERSON	11.76	29	4.76	21	40.5	7	
Fall River	14.84	17	5.10	16	34.3	22	
Dayton	13.90	23	4.78	19	34.6	20	
Grand Rapids	14.87	16	6.19	8	41.6	5.5	
Lowell	14.54	20	4.30	29	29.6	28	
Cambridge	19.84	5	6.22	6.5	31.3	24	
Bridgeport	15.21	15	4.54	26	29.8	27	
Albany	17.35	6	4.76	21	27.4	32	
Hartford	21.27	3	7.07	2	35.6	15	
Trenton	13.51	24	5.67	9	41.9	4	
New Bedford	15.61	12.5	4.07	25	29.9	26	
Reading	9.07	33	3.30	32	36.4	14	
Camden	13.26	26	5.07	11	42.0	3	
Lynn	15.61	12.5	4.47	28	28.7	29	
Springfield	24.87	1	8.65	1	34.8	18	
Wilmington	10.08	32	3.48	31	34.7	19	
Lawrence	13.30	25	4.29	30	32.1	23	
Yonkers	23.61	2	7.35	3	31.1	25	
Youngstown	11.69	30	5.04	17	43.2	2	
Somerville	15.89	11	5.46	15	34.4	21	
Troy	16.50	8	4.09	24	23.4	70	
Utica	14.20	21	5.01	18	25.3	16.5	
Elisabeth	11.86	28	4.48	27	37.7	10	
Waterbury	14.06	18	5.47	13.5	37.3	12	
Schenectady	14.63	19	5.47	13.5	37.4	11	
Hoboken	16.27	9	6.76	5	41.6	5.5	
Manchester	12.73	27	3.08	33	24.2	33	

^bFinancial Statistics of Cities, 1916.

TABLE VI. PATERSON COMPARED WITH THIRTY-TWO SELECTED CITIES ON TEN ITEMS OF CITY MAINTENANCE

ITEM	City of Paterson	Per Capita Cost		Rank of Paterson among the 33 cities on basis of the amount spent
		Average for 33 selected cities	Median of 33 selected cities	
I. General Government	\$.67	\$ 1.21	\$ 1.13	33
II. Police Department	1.41	1.60	1.44	18
III. Fire Department	1.72	1.62	1.57	11
IV. Health and Sanitation	1.12	1.64	1.47	28
V. Highways	.79	1.73	1.74	31
VI. Charities, Hospitals and Corrections	.46	.53	.78	33
VII. Schools	4.76	5.31	5.04	21
VIII. Libraries	.21	.25	.22	19
IX. Recreation	.20	.44	.32	20
X. Miscellaneous and General	.27	.38	.34	19
Total Per Capita Cost ^c	\$11.76	\$15.28	\$14.84	29

^cData taken from Financial Statistics of Cities, 1916, pp. 230 ff.

^dIncludes more than the ten items above.

seventy per cent of the larger cities. With relatively low tax rates, it is not unreasonable to expect that Paterson should devote even a larger percentage of all municipal maintenance moneys to schools, since with our rapidly mounting cost of living that municipal department is in greatest need of financial assistance which is supporting the largest group of salaried workers. By reference to Table IV it will be observed that Paterson ranks above the median for all the years for which data are presented.

The percentages of entire city expenditures devoted to schools with respect to the selected group of cities appears in Table V. In order to prevent any misinterpretation of the high ranking of Paterson in Column VI of Table V, the per capita expenditures for city maintenance including schools, and the per capita expendi-

items in which she is found lower than the median, further expenditures would have been necessary for the year 1916, as shown below. The amounts that Paterson should have added to reach the average in the nine items are also given.

If the public school system had had available even the additional amount, \$38,474, as shown in Table VII, it might have been very readily employed in advancing the interests of the Paterson school children.

In the final analysis the real measure of whether a community is paying what should be paid for educational purposes is the amount of money spent per pupil in average daily attendance. That the most equitable comparison might be made, the amounts spent per pupil in average daily attendance for the years 1907-16

Basis of Comparison—The Expenditure for Each Inhabitant.

TABLE VII. ADDITIONAL AMOUNTS PATERSON WOULD HAVE SPENT IN 1916 IF LOCATED AT THE MEDIAN OR AS THE AVERAGE OF THE 33 SELECTED CITIES.

ITEM	Amount needed to reach average		Amount needed to displace median
	\$ 74,200	26,107	
I. General Government			\$ 63,207
II. Police Department			4,122
III. Fire Department			48,002
IV. Health and Sanitation			130,537
V. Highways			50,810
VI. Charities, Hospitals and Corrections			43,670
VII. Schools			38,474
VIII. Libraries			1,374
IX. Recreation			4,122
X. Miscellaneous and General			9,618
Total Per Capita ^d			\$423,216

^dPopulation for 1916 estimated at 137,408.

^eIncludes more than the ten items above.

tures for schools alone, are also given. The ranking of Paterson on these last two items as compared with other cities in the list is what might be expected from the facts of Table IV.

It becomes clear that altho Paterson spends less per capita than 28 of the cities in the list on city maintenance, the percentage devoted to schools of the relatively small total is greater than the percentage so allotted by 28 cities of the list. The Paterson pays toward the support of public education a fairly large proportion of all moneys paid out for municipal purposes, total population per capita expenditure for schools falls below the median and the average of the selected cities. Paterson will be found in Table VI as ranking twenty-first out of 33 cities when amount paid for schools is considered with the single inhabitant of the city as the basal unit. In this table Paterson's per capita expenditures for other municipal purposes are compared with the average and means of the group of selected cities. The average rank for Paterson on all ten items of this table is 23.

Paterson's rank on none of the ten items is higher than eleven out of 33, this being the rank of expenses for the fire department. Paterson ranks particularly low in her per capita expenditures for recreation, schools, sanitation, streets, and charities, hospitals, and corrections. If Paterson had been the median city on the nine

for all cities of 25,000 or over, north of the Ohio River and Mason-Dixon Line and east of the Mississippi River, have been computed from the annual reports of the Commissioner of Education for the years 1908-17. The amounts spent in Paterson and in the median city are given for each year in Table VIII with the number of cities included in each year's distribution from which the medians were obtained.

(To be concluded in June)

TABLE VIII. MEDIAN OF AMOUNT SPENT FOR SCHOOL MAINTENANCE PER PUPIL IN AVERAGE DAILY ATTENDANCE FOR THE YEARS 1907-1916 FOR ALL CITIES NORTH OF THE OHIO RIVER AND MASON-DIXON LINE AND EAST OF THE MISSISSIPPI RIVER HAVING A POPULATION OF 25,000 OR OVER.

Years	No. of Cities	Median Cost Per Pupil in Average Daily Attendance	Paterson's Cost Per Pupil in Average Daily Attendance	Difference Between Paterson's Cost and the Median Cost
1907-08	125	\$33.44	\$31.61	\$1.83
1908-09	131	33.44	28.23	5.21
1909-10	118	34.78	29.55	5.23
1910-11	98	36.00	28.94	7.06
1911-12	120	37.82	31.27	

THE NECESSITY AND DIFFICULTIES OF SUPERVISION IN A CITY-SCHOOL SYSTEM

Herbert S. Weet, Superintendent of Schools, Rochester, New York

It seems almost like "carrying coals to Newcastle" to discuss before this body the necessity of supervision in a city-school system. The changed conditions which have led to questions concerning this necessity are well known to us all. The modern city school has come to touch every phase of the child's life. Furthermore, it must continue to touch even more effectively every phase of the child's life if it is to be true to its great work of preparing the boys and girls of this country for the heavy citizenship tasks which are just ahead. This broadened work of the public school has led to the introduction of many activities, even yet referred to as "special," which are quite as vital to the child's welfare, if he is really to live, as are the so-called regular activities. As these activities have been introduced and as our procedure even with the regular activities has become more scientific, there has grown up in every city school system in the country a corps of supervisors each concerned with the immediate direction of some particular subject or department. It is interesting to note that the primary question which is being asked today is not whether these activities are needed in the education of the child but whether supervisors are needed in order that the educative values of these activities may be realized.

Now common fairness demands that we shall not interpret those questions as directed against the thing which supervision is designed to do. Doubtless here and there may be found a person who would take this extreme view, but it is by no means representative. The proposition that if any activity is worthy of a place in the school system it is worthy of a leader, whose business it shall be to see that its educative values are being realized, is one which few people would care to challenge. But there are those who believe that the desired results can be more effectively guaranteed under some other plan of organization. One plan proposed is that of departmentalizing, at least to some degree, all grades of the elementary school.

Over-Supervision and Departmentalizing.

The answer to this question turns largely on our conception of whether the single-teacher-plan now prevalent should continue to prevail as it has in the elementary school or whether these early grades should be departmentalized, at least to the point where the so-called special subjects shall be taught by special teachers. It is true that even then supervision would continue and would be precisely the same in principle as it is today. We cannot conceive of forty, fifty or more schools which go to make up the city school system, each with its special teacher of music, for example, with no supervisor or other person whose specific task it shall be to direct music. But even so under this plan of departmentalizing, the amount of supervision involved in the work of any one teacher would most naturally be very greatly reduced over what it is today, when one teacher teaches the entire range of subjects and so comes into working relation with practically every supervisor in the system. In so far as over-supervision, or coming into working relation with too many supervisors, is what is meant when the necessity of supervision is challenged, then relief would be afforded by just the extent to which the range of subjects which any particular teacher might be called upon to teach

Editor's Note.—This paper constituted one of the strong addresses at the Chicago convention of the Department of Superintendence. It was read Wednesday morning, Feb. 26.



HERBERT S. WEET
Superintendent of Schools, Rochester, N. Y.

would be limited. But the prospects for this procedure in the early grades of the elementary school are by no means encouraging, and the chief reasons for this are educational rather than financial. There is a very deep seated conviction in the minds of most school people that the best educational welfare of the young child requires the single-teacher-plan of school organization. Whether right or wrong the fact remains that this is the plan actually with us, the prospects of its changing in anything like the near future are not to be found and consequently we can find little, if anything, in the proposed solution thru departmentalizing that will solve the problem.

Another thing not infrequently advanced is that the combined efforts of principal and teacher in any school are sufficient to guarantee the necessary leadership. With reference to this, experience has shown us all the impracticability of it. No matter how exalted our conception of the place and power of the principal and teacher may be, and no matter how competent they may be, it is simply unreasonable to expect either or both to give to each and every activity the special care and attention which that activity must have if it is to accomplish its end in the education of the child. And I wonder if our experience has not also taught us that as a rule the stronger the teacher and the principal the greater is their appreciation of the fact that they are unable to follow thru and pass judgment upon each and every one of these activities. But it is just this care and attention, just this help which both teacher and principal need and to which they are entitled, that supervision is designed to give. The properly qualified supervisor is one who by talent, training, experience and personality has become a special leader in his subject or department. He brings with him the experiences gained by contact with many different teachers and principals in many different schools. He is, therefore, in a position as no one else can possibly be, to keep in touch with the necessary changes in subject matter and methods of presentation if growth and progress are to come. If his work is done as it ought to be done, he is both a help and a protection to each and every worthy principal and teacher in the school system.

Causes of Discontent of Teachers.

But we are inclined to believe that the heart of this problem is to be found not in the present plan of supervision but in the difficulties of so administering it as to have it accomplish the

ends for which it is designed. He who would deny that there is a vast deal of discontent among the teachers of this country over this matter of supervision is simply blind to the facts. So far as I am aware no city is free from it and no city has a monopoly on it. Perhaps the best approach to a discussion of the chief causes of this discontent is to be found in a consideration of the two extremes involved in it.

At the one extreme stands the incompetent teacher or principal who objects to any standards of work except those which are self-imposed. The time will never come when supervision will be accepted by these members of a public-school system. But after all has been said that might be said concerning these we are face to face with the fact that they constitute a decidedly minority group in the city-school system. The great body of our teachers are fair-minded, intelligent and devoted to the welfare of the children with whom they work. They are public spirited and during the days that have passed no body of people in any community gave greater evidence of ability to do public service intelligently and devotedly than did the teachers of the cities of this country. We may well ask ourselves, therefore, how it happens that this small group who seldom stand up to be counted can spread their spirit of discontent thru the great body of worthy teachers to the point where the interests of the schools are jeopardized and the sound principle of supervision challenged. I believe the answer is to be found in the other extreme for which superintendents must in common fairness be held responsible. It is the extreme of autocratic supervision.

The fact that a teacher chafes under supervision does not necessarily indicate that she is incompetent. There is a type of supervision against which any self-respecting teacher ought to protest. It is first, last and all the time supervision from the center to the circumference. Its great task is to get the wisdom of the center, which only too often comes thru introspection, out to those at the circumference in such a way as to keep them busy and contented. No one has ever yet succeeded in doing this in the long run. The same principle is found in religion, in industry, in politics and in all other activities of life. The latest attempt in government went down when the armistice was signed. To just the extent that this type of supervision is present in any school system, to just that extent the incompetent who stands at the other extreme is able to make progress in challenging the present plan of supervision.

The Principal's Place.

Now between these two extremes stands the true principle of representative supervision. It goes without saying that the first requisite in securing representative supervision is the selection of one who by talent, training, experience and personality is really able to lead. In general, where such a person is selected his work will be representative of all the common interests involved rather than of his own particular theories unmodified by the results of practical observation and experience in the classroom. And yet, even a person who inherently has all the qualities needed may fail to be representative largely because of the attitude of the superintendent himself or of other supervisors in the force concerning the place which the principal has in the school system. As a general principle, supervision in a city-school sys-

School Board Journal

tem will be representative in precisely the proportion that the principal of the school is regarded as a vital educative force in the school over which he presides. Nowhere has the difference between this attitude and its contrast been stated more clearly and effectively than in a statement made some years ago by one whose memory is held in reverence. In 1909, Ben Blewett in his annual report on the schools of St. Louis, stated the matter as follows: "There are two possible conceptions of the relation of the supervisor to the principal. One considers the supervisor as an expert and specialist whose duty it is to aid the principal of the school in setting up and maintaining a high standard of efficiency in his special subject or department of work; the other considers the principal as merely the business manager of the school without definite responsibility in shaping the course of study, or in giving purpose and method to the instruction, or in influencing the character of the intellectual and moral life of the school.

"The first conception regards the principal as vested with the immediate responsibility of setting in motion and directing all those forces that must be at work to instruct and to educate the pupils of the school most skilfully. Under this conception the principal makes use of the supervisor as one of his effective means of accomplishing his plans. Under this conception he does not regard the supervisor as one who filches from him his office or as one on whom he may unload responsibility that presses too heavily upon his own easy indifference or incapacity. The last conception assigns to the corps of supervisors and the superintendent all that is vital in the process of educating and leaves to the principal the empty task of routine organization and accounting."

Stimulating the Principal.

The full significance of this distinction with reference to the place of the principal in the life of the school, so far as its bearing upon this problem of supervision is concerned, came to me some two or three years ago while in conference with a superintendent of schools. We were discussing this same problem of supervision and attempting to establish the spheres in which teacher, principal and supervisor might each claim his sovereign rights. When the discussion turned to the place of the principal, this superintendent related in substance the following experience: "During the first year that I was superintendent of schools a superintendent of several years of experience and a man who had met with good success in his chosen field, said to me that the most difficult problem which I would have to face as time went on would be that of knowing how to get accomplished in the schools the things that I desired to have accomplished in spite of the fact that each school had a principal thru whom the superintendent was obliged to work. This remark made a profound impression upon my mind. I had been a principal myself and had been conscious at times of a certain domination which had so restricted my own opportunities for professional growth that I had chafed under the burden. It had never occurred to me in my endeavors to work out the educational problems of the particular school of which I was principal that I might be standing in the way of the superintendent and preventing him from accomplishing for the children of this school the things which he desired to have accomplished. Then and there I decided that come what might I would test out the proposition that my great function as superintendent of schools was to stimulate so far as possible the principal to exercise initiative and educational leadership and then to bend my energies toward securing for these workers in the schools conditions favorable to a realization of the ends for which they were working."

And he concluded with this significant statement: "I have been amazed at the power and resources that these principals have shown almost without exception." We may depend upon it that in that community the extremes of autocracy and of pure democracy are being avoided and that the sound principle of representative supervision is being carried out.

And the same principle holds with reference to the attitude of principal, supervisor or superintendent toward the individual teacher in the classroom. Not long ago a mother came to me to seek for her son a position in our schools. The young man had graduated from college some two years before and had since been teaching in one of the smaller communities of the state. The mother was describing to me the qualities of the young man and attempting to give me his point of view as she understood it. It goes without saying that she was putting the emphasis upon those things which, in her judgment, would appeal to us as desirable qualities. She closed her recital with this statement: "He has spent two years teaching outside the city because he felt that he ought to have this experience in doing constructive work. He understands that when he comes into the city system he will be expected to do what he is told to do and he thought that he might do this more intelligently after two years of experience in constructive work. In proportion as that comment is true it constitutes one of the most damaging testimonies that can possibly be made against the operation of supervision in the city school system. In so far as it is true it has become so thru the absence of representative supervision under which common interests are both understood and conserved.

Cooperation, Sympathy and Vision Needed.

In conclusion then, I believe that we must accept the necessity of supervision as nothing short of axiomatic. Without it no city-school system can even approximate that cooperative working relation among its parts so essential if the whole is to be an organic unit. Without it neither the community, the child nor the great body of worthy teachers can be protected against the incompetent who not only works an injustice to the children but who reflects dis-

credit upon the profession of which he is a member. And lastly, without it it is difficult to find any practicable way of gathering, organizing and distributing the contributions which are being made to education from the teacher in the classroom to the specialist in the university, and making them available as helps to the great body of those principals and teachers who need and are entitled to receive these contributions. But at the same time we must have our supervision more representative than it has been if it is to stand the test. Some superintendents thru actual experience as teachers in the classroom and as principals in the school have learned some of the things to avoid if these larger needs of supervision are to be met. We had the task but we may not have had the vision, and the task without the vision becomes drudgery. And likewise, there are those who are so far removed from the classroom and the field of administration as to have the vision without the task, and the vision without the task becomes visionary. Between these two extremes lies the real supervisor, the real leader. There is no such thing as over-supervision, when such a one is found. Task and vision are so linked in his work that the spirit of service becomes his great characteristic. Give us a sufficient number of this type and America thru her public schools will continue to bring out in the future even more than she has in the past the great fundamental values of democracy.

Fort Dodge, Ia., has voted a bond issue of \$650,000 for a new high school and site. The building is to provide accommodations for 1,250 students and is to contain all facilities for high school and junior college courses. The present bond issue is believed to be the largest ever voted in the state for a single school building.

An extension of the playground facilities is also planned. Last year the board conducted seven playgrounds and five tennis courts which drew an attendance of 53,620 persons. There were 23 playground supervisors, two garden supervisors and one canning club supervisor in charge of the different activities. This year there has been organized a twilight baseball league with eight teams and a number of garden clubs all in charge of specially trained club leaders.



AN OLD PHILADELPHIA SCHOOLHOUSE.

The old schoolhouse illustrated above was for many years a landmark of the Frankford district of Philadelphia and made way in 1917 for a store and apartment building. It was first occupied for school purposes in April 1821. According to a minute in the records of Oxford township the directors "agreed to contract with Isaac Shallerross to instruct all the children taught at public expense in the township for a yearly allowance of \$250." The attendance was 55.

Immediately in front of the old building is the last remaining mile of the old Frankford road, placed in position about 1737.

This road was provided for in 1683 by the first Grand Jury of the government of William Penn at Philadelphia, when that body recommended "that the King's road from Scullkill (Schuylkill) thru Philadelphia to Neshaminy Creek be marked and made passable for horses and carts where needed."

The milestone is shown to the left of the house in the accompanying photograph.

The Diary of a Superintendent in a Small Town

December 28. At a board meeting a day or two ago, as the danger of the Flu has largely passed, it was decided to begin school on December 30th and to teach forty minutes extra each day, omitting Saturday. Today while I was talking with Mr. Linacre, president of the board, Mr. Hanna, a farmer living about three miles from town came in. He has a reputation as a bluffer, talks loud and coarse and usually waits till a crowd is present to begin. This time he followed the usual formula: "On what section of the school law, Mr. Linacre, do you base your right to make the school day forty minutes longer?" Mr. Linacre informed him there was no law granting the right but it was, under the conditions, the common-sense thing to do. After a brief conversation Mr. Hanna began to berate school boards, teachers, methods of teaching, in fact all modern conditions. "This," said Mr. Linacre as Hanna continued, "is one reason why some of the board members oppose changes. Anything, no matter what, starts all the 'intellectuals' in town and sometimes, as in this instance, outside the school district."

December 30. School started again today.

Since school closed the last time, I have received word from the state university, also from one or more teachers' agencies, each stating ability to supply us with teachers. I have taken the time to show these to some of the teachers who have come into the office.

December 31. Had a grade teachers' meeting this afternoon. Their attitude has completely changed. They have been so independent before, objected to the forty minutes extra daily to make up time, to Saturday teaching, grading the papers for the standard tests, in fact to most anything. This afternoon they showed a willingness to cooperate in every way suggested.

January 1. Miss Dick, English teacher, was chairman in assembly today and conducted the new year resolutions from pupils. I am satisfied Dan Ryan, a rather crude junior, made a number of mistakes in his English purposely to see her facial expressions.

Charles Penniger, a second grade boy, was in the office a few minutes at noon. On Monday of this week he came in, found a funeral announcement on my desk and asked if he might have it. Today he came in again, looked all about the desks, bookcases, waste paper basket and finally I asked him if he had lost anything. "No," says he, "just looking for another one of them black and white papers. Ma told me to look. She wants to go to another funeral."

January 2. After a high school teachers' meeting this afternoon, Misses Motler, Dick and Ferguson stayed a few minutes longer with Mr. Jason and me. Miss Motler asked if there would be anything done this year except write in the local papers about a new building. This is the first time the matter has been mentioned for months. At the time this country entered the war a movement was on for a new building but of course for some time nothing could be done. Miss Ferguson and Mr. Jason were in doubt whether this was the time to start the movement. But Miss Motler with her characteristic impulsiveness and aggressiveness said "This is the time. We need the building, intelligent people know our needs and we should not hesitate."

Have spent hours this evening studying this town. Peculiar school conditions exist here. For more than a generation this town has been trying to keep a small denominational college alive. It is estimated that over one hundred and ninety thousand dollars have been raised

during this time for colleges and tonight they have two large empty buildings and another college building now used as a ward school. Away back in the 90s there was a time when it seemed the college would go. Then another denomination erected a large building and for a year or two, there were two colleges, college fights, church fights, the town became divided and during the hard times of the middle 90s, both failed.

Local people still owed a considerable debt on the newer building and a movement was started to sell it to the city for a ward school and the town bought it. It is still used for this purpose—a large building with many arches, dormer windows, turreted corners, a structure that will make an imposing picture in a catalog but of little value as a public school building.

The other college has had a varied career. Two or three denominations have tried to make it go. It would start up with much acclamation by the President and the local real estate men, run for a year or two and close for the lack of funds and students. Most of these years it has been closed.

Then about 1906 the state legislature voted to establish a normal somewhere in this section of the state and the town had new aspirations. Here is a large building, it said, to the visiting committee in search of a normal site, and as much land as needed and considerable cash will also be furnished. Broad concrete sidewalks with the name of a contributor to the sidewalk fund stamped in each square, were built thru the campus and in all directions about the college. Windows that had been broken out for years were repaired and birds' nests under the eaves were torn down and the white bird manure washed away, but the normal was located in another town.

A few years later the denomination now in control secured a ten-year lease and W. A. McCune, D. D., a man with a powerful personality and an unusual knack for raising money took control. The town was turned over to him. He became the town boss. He suggested to the Board of Education that the high school tuition be increased so non-residents would be forced to enter college. He attempted to do all the work, from preparing pupils for an eighth grade examination to granting an A. B. degree with a faculty of less than a dozen instructors.

Such were the conditions when I was elected superintendent. I was told there must be harmony between the high school and the college. This meant that the faculty and myself were to keep quiet about the real standing of the college among educational institutions and change the attitude of the high school pupils in their antipathy to the college. The high school had never had a chance. It had led a passive existence. No one cared whether a non-resident entered nor whether he remained. People reasoned that a non-resident in the high school was of little value to the community but if he in sufficient numbers would enter the college, prosperity would forever abide in their midst.

The first summer, after much persuasion, I secured the right from the board to send out a small circular to the eighth grade graduates in this section. All during August furnishing my own stamps I wrote personal letters to prospective students. The fields were virgin. There was 30 per cent increased attendance the first year. Each year since then the same methods have been followed with the usual increase each year.

Now no addition has been made to the school building since 1885. The entire school was and

is crowded. In the school news to the local papers, the crowded condition, the needs of the school, have been mentioned time after time. One week a short time before the war began, I grew bolder than usual and one editor cut out these paragraphs, stating later in a Commercial Club meeting I "was giving this fair little city a black eye."

Then in the fall and winter of 1916 while we were advocating a new high school, Dr. McCune came out with a double column first-page article in each of the local papers for a girls' dormitory. "No high school is in sight" was Mr. Jason's remarks when he saw this article. A meeting of the Commercial Club was called and Dr. McCune presented his proposition. He explained how the critical period in the life of the college had come, how it had to grow or die. He explained people from a distance did not care to send their daughters here unless they could be properly cared for, with excellent accommodations, rooms, swimming pools, gymnasium, etc. He explained how people were turning away from the state institutions and how we here would have to provide for this change in education. He spoke of the knockers, men who opposed progress, especially if progress was education and cost anything. There was little opposition. Men either voted affirmatively or not at all.

A committee was appointed to raise \$20,000 locally and Dr. McCune guaranteed he would raise a like sum out of the city. The committee met, made an estimate that each man should give and then began the campaign. In an indirect way I learned my amount and paid it thinking all the time what a small worm I was. One or two refused to pay and their business was boycotted. It was not safe to doubt as to the future of the college or one would be in the same position as he who opposed the present war.

The dormitory was built. A short time later the United States entered the war and the college closed and is still closed. But the high school even the past year had a good increase in attendance.

January 3. Mrs. Andrews called today to secure her children's books. They have been out of school since it started on account of the Flu. She informed me politely the little girl we placed back in the first grade near the beginning of the present term, was doing excellently at home in the second grade—in fact was slightly ahead of the boy in this grade in school. I was also informed that Mr. Firstly with whom I had been in trouble a number of times on account of his boys, was going to run for director in the spring.

January 6. Miss Motler who is coaching the girls' basket ball team reports all is not well. She says the senior girls on the team have not been coming out to practice for several afternoons and she wants me to help solve the difficulty.

January 7. Mr. Harvey whose daughter, Marie, plays guard on the basket ball team, came to me today to ask that we cut out basket ball this year. He says Marie had a serious case of the Flu, is not fully recovered and yet she will play as long as there is a team.

January 8. The boys' basket ball team played their first game of the season, with the All Stars, an aggregation of old high school players, most of whom have just returned from the army or the S. A. T. C. and the high school won by a close margin. There was a great deal of friction and the coach had to take out one of the high school players to avoid a fight. We

School Board Journal

made enough money tho to pay all on the boys' suits.

January 9. I learned today the cause of friction on the girls' team. Bessie Carpenter, captain, a junior with strong class prejudices and an idea or two of her own, had notified the senior girls that the team this year would be composed of juniors and no others need come out to make the team. She has had the idea that the captain selected the players instead of the coach. The senior girls had taken her advice rather seriously and, too, were not enthusiastic about her leadership.

January 10. Both basket ball teams were sent to other towns and both were defeated. Miss Munster made a complaint against Estell Firstly who went with the team but not as a member. She says he has cut her botany class twice and if he does it again there is no grade for him.

January 13. Mr. Jason and I had a long talk after school this afternoon about the possibilities of a new building. He said so far as he could see the best way to get the matter started was to present some concrete problem to the board and get them to act. So far as we could analyze the situation the Board would be for doing something. In the meantime we would continue sounding out individuals, especially a Mr. Stockton, a real estate man who could control perhaps fifty votes in case of an election. Mr. Jason said he was thinking of taking out some more life insurance from an individual who was close to Mr. Stockton and he would find out just how he stood.

January 14. Learned today that Helen Sdney and Myrtle Lawson, freshmen, played truant Friday afternoon. I called out Myrtle and she said she became sick suddenly and had gone home alone. "Yes, I went directly home." I called out Helen and asked her if she knew anything she wished to talk to me about and she told the entire story. "Myrtle and I left school at the close of the first period in the afternoon and went direct to a relative of mine where we stayed till 5 P. M. No, neither of us has mentioned the matter to our parents." I called Helen's mother, was sure I had her on the 'phone and then gave the phone to Helen with the statement, "Tell your mother." Tho her face did not move, tear after tear rolled down her face as she related her story. Myrtle's mother is dead so she talked with her uncle. She told him all without a tear or a regret so far as I could see. Both are to report to the Principal Thursday at noon.

January 15. The juniors had a social at the school building from six to nine last night and someone stole their refreshments and all are angry today. Pupils in the different classes are saying mean things and Miss Ferguson, the junior sponsor, fears trouble is ahead.

January 16. A number of girls, many non-residents, bring their lunch and at noon all eat in one of the grade rooms under the supervision of a teacher. Several came to me today and asked to use the primary room in which there is much floor space and a piano, for waltzing till 12:40 when the primary pupils may return and the high school girls return to their respective rooms. No boys, they said, would be admitted and Miss Chadwick, high school teacher, had promised to stay with them. Thru my mind went scraps of sermons, memories of bitter quarrels between parents and children over dancing and then I remembered we are living in a more liberal age but I was not sure how liberal this town is. I gave my consent. I expect the same good mother, or deacon, or pastor in his Sunday morning sermon, to speak out.

January 17. Carl Kahn came in today and

asked to be allowed to drop physics. Carl is a good student—has never had trouble with any of his teachers but it seems he and Miss Munster are having considerable trouble.

The boys lost in basket ball tonight and the girls won.

January 20. Richard Flader and William Robertson had a fight on the school ground at recess this morning. I happened to be standing near a window and as the boys were doing a little more yelling than usual, saw the entire engagement. As I watched it a few moments, I was surprised how these little fifth graders were defending themselves. I motioned for them to come into the office and we had a talk. I asked Richard, a white haired little fellow, why they were fighting. He looked at William a moment and they both grinned and he says, "I guess we just wanted another fight."

There was a board meeting tonight. I had the pleasure to report that all talk about higher salaries had stopped and there was more of a spirit to cooperate than there had been for some time. The board had not paid for the time lost on account of the Flu but tonight complete time was allowed. One reason for this was on account of the changed attitude of the teachers. I was ordered to collect tuition from three different families, all doubtful cases.

After these details had been decided, I brought up the matter of a new high school building. I showed how in recent years the high school attendance had been doubled, how a junk room had been cleaned out and converted into a classroom, how the old office had been changed into a classroom and how the present office was formerly a part of one of the hallways. I read the reports from state inspectors commanding them for many improvements but each report recommending a new high school. After a time I finished and waited their decision. About the only noise made for a time was when Mr. Reed used the spittoon. "Well —," said Mr. Linacre with a grin.

"Something ought to be done," said Mr. Ferguson.

"The trouble is we're schoolhouse poor now," said Mr. Roberts.

"Why not buy the college buildings?" suggested another.

"They are going to start again this fall," said the president.

"How did they start the move for the dormitory?" some one asked.

"Old Doc. McCune went before the Commercial Club and told them what he had to have and they raised his \$20,000.00," Mr. Reed volunteered.

They talked for an hour or more. Something should be done but each felt it was a difficult proposition. Mr. Reed finally moved that the Commercial Club be given a hearing and if this body acted favorably, the board would do something and the motion passed.

January 21. Miss Bechtell, domestic arts teacher, and sponsor for the seniors came into the office today and asked for a few minutes' time. She said she had talked with Jack Hamilton, treasurer of his class who had misappropriated the \$5.70 raised to pay the grocery bill for a senior social. She explained Jack for a time had made fair promises. But for some time has not been attending class meetings and was avoiding her on every occasion. She asked that I take over the matter. Jack and I had a rather interesting conversation and he has been given till Monday to attend to the matter.

January 22. A couple of senior boys came to me at the close of the second period this afternoon and asked to see me in the office the eighth period when both had no classes. They

wanted to know about the treasurer of their class. They explained the time was close at hand when considerable money for rings, invitations, etc., would pass thru his hands. I thanked the boys for their thoughtfulness but asked to postpone the matter for a few days and then they could come again.

January 23. Miss Chadwick, English teacher, handed in her resignation today to take effect at once. She has secured an appointment to a government position in Washington. She requested me to secure her release at once. I look for trouble because her resignation makes about forty per cent of the faculty who have resigned since the election last spring. The board, at least two or three, are growing weary of these resignations. I went to see them this afternoon and practically every one talked unfavorably.

January 24. The boys were defeated in basket ball again tonight. The girls won.

January 27. I had another talk today with Miss Chadwick about her resignation especially at this time when she has just received several weeks' salary for which she has not taught. I was surprised when she offered to refund this salary if her resignation was accepted. I told her when the board learned of her fairness, it would go a long way to influence the members to grant her release, if anyone could be secured to take her place.

January 28. Miss Chadwick came to me this morning as happy as a fifth grader at 4 P. M., saying she had found a person to take her place—Miss Martha Stephens, living some distance in the country. I began to sweat as I saw a variety of undesirable possibilities, and Miss Chadwick continued, "I called her up and she is willing to take my place." Miss Stephens is a first-class young woman, a social leader, comes from an excellent family, but she is not of the material out of which high school teachers are made. While we were talking she 'phoned about the position. Her people are influential. I hope this tangle can be straightened out without too much embarrassment.

January 29. The board had a brief meeting tonight. Miss Stephens had not made application. A Miss Wright recommended by the nearby Normal was elected. Miss Chadwick was released with no deduction from her salary.

January 30. The Commercial Club had a meeting tonight and as the room in which they ordinarily meet was too small, it was decided to hold the meeting in the circuit court room, as it had been in use all day and was warm. The entire high school, the teachers and a host of patrons were present. Mr. Linacre put the proposition—a \$50,000 bond issue for a high school. Then Mr. Ferguson spoke briefly outlining the needs. Then Mr. Baldwin spoke stating he understood the college would open again this fall and it would take care of the extra number in the high school as it had formerly and that he had learned from long experience school people cry a long time before they are hurt. Mr. Ferguson was on his feet in a minute to inform him every charge made was true, that all knew his (Mr. Baldwin's) reason—had no children, never had any—and had stood against the improvement of the school for years. E. J. Eldon, county superintendent of schools, made a short talk in which he showed how other towns round us had built high schools and this community had the wealth if it cared to build. Several spoke for and against the issue, some for a new building for the grades as well as the high school and one against any more taxes till we saw when we were going to have peace. A motion was passed to postpone the matter till the next regular meeting two weeks hence.

(Continued on Page 44)

A STUDY OF A TYPICAL CITY OF THE SOUTH IN RESPECT TO SCHOOL MAINTENANCE*

Frank F. Bunker, Chief of City School Division, U. S. Bureau of Education

The Early Struggle to Organize the System of Columbia, South Carolina.

The school system of Columbia, South Carolina, was not inaugurated without a bitter struggle extending over several years and contested at every step by citizens who protested against "taxing one man's property to educate another man's child." Indeed, the movement toward a State-supported, State-controlled system which would provide free schooling for rich and poor alike was retarded in South Carolina as in other Southern States. From colonial days well-to-do families had attended to the education of their own sons and daughters, in many instances sending them abroad for their training. To meet the need of those who prized education, yet could not afford the expense of European schools, a swarm of private pay schools had arisen. It had long been the policy of the State to leave elementary education to the parents, and of the poor particularly to private and parochial efforts, and to associations, such as the Hibernian, the German, and other societies of national scope.

In 1811 the State provided a fund the income from which was to secure to every citizen the benefits of an education, but it included the unfortunate provision that "if the fund should prove inadequate for all applicants, preference should be given to the poor." The fund was small and was entirely absorbed by the preferred class. Children of the well-to-do were excluded, and the schools, in so far as they were independent institutions, degenerated into pauper schools. Only those could avail themselves of the benefits of the measure who accepted it as charity or who made a declaration of pauperism. Not until 1868 was constitutional provision made for the appointment of a State superintendent and for the establishment of "a liberal and uniform system of free public schools thruout the State."

In part, then, due to a strong sentiment favoring private-school instruction or instruction within the family by means of tutors; in part due to the stigma of pauperism which the schools inherited from a former period; and in part due to the impoverished condition of the South following the war and from which the country was slow in recovering, support of public schools was reluctantly given and in meager amounts only. Indeed, in Columbia long before the close of the first year's session the maintenance fund was completely exhausted. The 1-mill tax, so begrudgingly allowed, yielded but \$3,200 and much of this had to be expended in rehabilitating the two buildings which the trustees of Columbia Academy had permitted the school commissioners to occupy. These buildings were constructed so as to house the teachers and their families on the upper floors, while but two rooms on the ground floor of each building were reserved for classroom purposes. Inasmuch as the tax levy had been secured with the understanding that a nine-months' term would be held, it was felt that failure to keep open for the stipulated time would mean a loss of confidence endangering a levy for the following year; so special efforts were made to keep the schools running for the designated time. Interested parents contributed amounts; the city council appropriated \$900; and friends in Columbia and elsewhere supplemented these sums with sufficient to enable the school officials to meet all of their obligations.

Efforts to Obtain Suitable Buildings.

This ultraconservative attitude of the citizens of Columbia in respect to adequate support of their schools is well illustrated by the story of the efforts made to secure proper seating facilities for the children of the city as the population increased. Tho the public-school system was organized in 1883 and housed in borrowed buildings, it was not until fifteen years later, in 1898, that any provision was made for additional buildings, and even then only a two-room building known as the Blossom Street School was erected. In 1903, or twenty years after the organization of the schools, the equipment consisted of but five buildings, valued in the aggregate at \$22,500; furniture valued at \$4,000; and school lots worth about \$27,000. The situation was so bad as to lead the superintendent to say in his published report of that year:

Well-informed persons have stated that South Carolina has the poorest school buildings in the United States, and that Columbia has, for a city of its importance, the poorest buildings in South Carolina. It is humiliating to say it, but this statement is unquestionably true, especially with reference to Columbia.

Three years later, in his 1906-7 report, the superintendent again speaks of the inadequacy of building facilities saying:

In recent years, the city has spent \$700,000 on permanent improvements, but of this large amount only \$50,000 was used in the construction of new schoolhouses. The record, then, is that 93 per cent of the funds invested by the city in permanent improvements during the past 10 years was used in constructing sidewalks, engine houses, opera house, sewers, and waterworks, while only 7 per cent went to school buildings. It is doubtful if this showing, as discouraging as it is, would have been made, had not the school board appropriated half the amount used for the erection of the schools from the regular income to the schools, while the teachers were being paid salaries sufficiently small to make living a burden sufficiently large to prevent them from concentrating their best efforts on their school work.

Efforts to arouse the public to a sense of the worth of their schools and to the realization of a need for proper buildings of a modern type were made from time to time, but yielded no tangible results for 22 years. In 1905, however, a building program was entered upon which gave, within the next twelve years a group of new buildings, for the most part, well lighted, well ventilated, with proper means for adequate heating, with modern sanitary conveniences of approved type, and with a pleasing architectural appearance. This program, completed with the erection of the present high-school building, provides a total seating capacity of 5,766. Inasmuch, however, as the 1917 report shows an enrollment of 6,104, with an average daily attendance of 4,555, it is clear that the housing accommodations for the children of Columbia are barely sufficient for the present and must be increased with the growth of the city and with better attendance.

The building program cost about \$465,000, of which amount only \$250,000 was raised thru the issuance of bonds. Of the remaining \$215,000, \$40,000 was a bequest from a citizen who gave, also, four acres of valuable land for a school site; \$76,000 was allotted by the city council from the general funds of the city; while the school commissioners were obliged to

divert the remainder, nearly \$100,000 in the aggregate, from its exceedingly meager maintenance fund, which was never intended to be used for building purposes.

In short, a city, now of 35,000 population or more, with an assessment roll of \$15,500,000, with a school enrollment of 6,104 pupils, and with a school system now in its 35th year has outstanding in bonded indebtedness for school purposes only \$250,000 — now \$273,000, as \$23,000 was assumed when two county school districts were annexed. At first glance this low bonded indebtedness may seem commendable, but in point of fact, when it is recognized that this low record has been obtained at the expense of that proper equipment and that generous maintenance essential to strong internal school work, the situation is but another indication that the citizens of Columbia either have not been informed in a forceful way of school needs or else the old indifference to the importance of good teaching and the conditions essential to good teaching still exists.

The Inadequacy of the School Maintenance Tax.

The history of local tax levies for school purposes, likewise, affords a criterion for judging of the tangible interest which the citizens of the community take in their schools. When the school system of Columbia was organized, the local rate was fixed at 1 mill on an assessment valuation of \$3,200,000. The rate was raised to two mills in 1884 on about the same assessment, and the two and one-half mills in 1890 on an assessment of \$3,500,000. During the period the state constitutional tax had remained constant at two mills, which, prorated on the basis of enrollment, yielded Columbia less than \$4,000 annually. In 1895, however, the constitutional convention increased the state tax rate to three mills, where it has since remained. This increase of one mill by the state was at once offset by the citizens of Columbia, who decreased their city rate, putting it back to two mills, despite the fact that the average daily attendance at the schools had risen from 864 to 1,825, whereas the assessment roll had barely reached \$4,250,000. That is to say, during the first twelve years of the life of the public schools of Columbia, whereas the average daily attendance had increased 111 per cent, the amount received for maintenance from State and city taxes had risen from \$8,540.81 in 1883-84 to \$15,895.45 in 1896-97, an increase of 87½ per cent only. Here the local tax rate remained, that is, at two mills, for the next 20 years, or until 1916, when it was increased to five mills.

This increase in the city tax rate for school maintenance, granted in 1916, was forced on the people's attention for the reason that the adoption of a state-wide prohibition law automatically abolished the dispensary fund, which the Columbia schools had been sharing with other schools of the state and county in steadily increasing amounts since 1900. This fund was derived thru a constitutional act, passed in 1895, whereby the net profits of the sale of intoxicants by dispensaries was to accrue to the schools and be distributed among them on a pro rata enrollment basis. Later the state plan was changed to a county system on a local option basis, and so continued until abolished in 1915. In 1912-13 Columbia's share of the county dispensary fund, based on enrollment, was \$17,385.10, which was 35% per cent of the entire fund. It was urged, however, that inasmuch as most of the intoxicants sold in the county were consumed by the citizens of Colum-

*From U. S. Bureau of Education, Bulletin, 1918, No. 28, entitled, *The Public Schools of Columbia, South Carolina*.

School Board Journal

made enough money tho to pay all on the boys' suits.

January 9. I learned today the cause of friction on the girls' team. Bessie Carpenter, captain, a junior with strong class prejudices and an idea or two of her own, had notified the senior girls that the team this year would be composed of juniors and no others need come out to make the team. She has had the idea that the captain selected the players instead of the coach. The senior girls had taken her advice rather seriously and, too, were not enthusiastic about her leadership.

January 10. Both basket ball teams were sent to other towns and both were defeated. Miss Munster made a complaint against Estell Firstly who went with the team but not as a member. She says he has cut her botany class twice and if he does it again there is no grade for him.

January 13. Mr. Jason and I had a long talk after school this afternoon about the possibilities of a new building. He said so far as he could see the best way to get the matter started was to present some concrete problem to the board and get them to act. So far as we could analyze the situation the Board would be for doing something. In the meantime we would continue sounding out individuals, especially a Mr. Stockton, a real estate man who could control perhaps fifty votes in case of an election. Mr. Jason said he was thinking of taking out some more life insurance from an individual who was close to Mr. Stockton and he would find out just how he stood.

January 14. Learned today that Helen Sdney and Myrtle Lawson, freshmen, played truant Friday afternoon. I called out Myrtle and she said she became sick suddenly and had gone home alone. "Yes, I went directly home." I called out Helen and asked her if she knew anything she wished to talk to me about and she told the entire story. "Myrtle and I left school at the close of the first period in the afternoon and went direct to a relative of mine where we stayed till 5 P. M. No, neither of us has mentioned the matter to our parents." I called Helen's mother, was sure I had her on the phone and then gave the phone to Helen with the statement, "Tell your mother." Tho her face did not move, tear after tear rolled down her face as she related her story. Myrtle's mother is dead so she talked with her uncle. She told him all without a tear or a regret so far as I could see. Both are to report to the Principal Thursday at noon.

January 15. The juniors had a social at the school building from six to nine last night and someone stole their refreshments and all are angry today. Pupils in the different classes are saying mean things and Miss Ferguson, the junior sponsor, fears trouble is ahead.

January 16. A number of girls, many non-residents, bring their lunch and at noon all eat in one of the grade rooms under the supervision of a teacher. Several came to me today and asked to use the primary room in which there is much floor space and a piano, for waltzing till 12:40 when the primary pupils may return and the high school girls return to their respective rooms. No boys, they said, would be admitted and Miss Chadwick, high school teacher, had promised to stay with them. Thru my mind went scraps of sermons, memories of bitter quarrels between parents and children over dancing and then I remembered we are living in a more liberal age but I was not sure how liberal this town is. I gave my consent. I expect the same good mother, or deacon, or pastor in his Sunday morning sermon, to speak out.

January 17. Carl Kahn came in today and

asked to be allowed to drop physics. Carl is a good student—has never had trouble with any of his teachers but it seems he and Miss Munster are having considerable trouble.

The boys lost in basket ball tonight and the girls won.

January 20. Richard Flader and William Robertson had a fight on the school ground at recess this morning. I happened to be standing near a window and as the boys were doing a little more yelling than usual, saw the entire engagement. As I watched it a few moments, I was surprised how these little fifth graders were defending themselves. I motioned for them to come into the office and we had a talk. I asked Richard, a white haired little fellow, why they were fighting. He looked at William a moment and they both grinned and he says, "I guess we just wanted another fight."

There was a board meeting tonight. I had the pleasure to report that all talk about higher salaries had stopped and there was more of a spirit to cooperate than there had been for some time. The board had not paid for the time lost on account of the Flu but tonight complete time was allowed. One reason for this was on account of the changed attitude of the teachers. I was ordered to collect tuition from three different families, all doubtful cases.

After these details had been decided, I brought up the matter of a new high school building. I showed how in recent years the high school attendance had been doubled, how a junk room had been cleaned out and converted into a classroom, how the old office had been changed into a classroom and how the present office was formerly a part of one of the hallways. I read the reports from state inspectors commending them for many improvements but each report recommending a new high school. After a time I finished and waited their decision. About the only noise made for a time was when Mr. Reed used the spittoon. "Well —," said Mr. Linacre with a grin.

"Something ought to be done," said Mr. Ferguson.

"The trouble is we're schoolhouse poor now," said Mr. Roberts.

"Why not buy the college buildings?" suggested another.

"They are going to start again this fall," said the president.

"How did they start the move for the dormitory?" some one asked.

"Old Doc McCune went before the Commercial Club and told them what he had to have and they raised his \$20,000.00," Mr. Reed volunteered.

They talked for an hour or more. Something should be done but each felt it was a difficult proposition. Mr. Reed finally moved that the Commercial Club be given a hearing and if this body acted favorably, the board would do something and the motion passed.

January 21. Miss Bechtell, domestic arts teacher, and sponsor for the seniors came into the office today and asked for a few minutes' time. She said she had talked with Jack Hamilton, treasurer of his class who had misappropriated the \$5.70 raised to pay the grocery bill for a senior social. She explained Jack for a time had made fair promises. But for some time has not been attending class meetings and was avoiding her on every occasion. She asked that I take over the matter. Jack and I had a rather interesting conversation and he has been given till Monday to attend to the matter.

January 22. A couple of senior boys came to me at the close of the second period this afternoon and asked to see me in the office the eighth period when both had no classes. They

wanted to know about the treasurer of their class. They explained the time was close at hand when considerable money for rings, invitations, etc., would pass thru his hands. I thanked the boys for their thoughtfulness but asked to postpone the matter for a few days and then they could come again.

January 23. Miss Chadwick, English teacher, handed in her resignation today to take effect at once. She has secured an appointment to a government position in Washington. She requested me to secure her release at once. I look for trouble because her resignation makes about forty per cent of the faculty who have resigned since the election last spring. The board, at least two or three, are growing weary of these resignations. I went to see them this afternoon and practically every one talked unfavorably.

January 24. The boys were defeated in basket ball again tonight. The girls won.

January 27. I had another talk today with Miss Chadwick about her resignation especially at this time when she has just received several weeks' salary for which she has not taught. I was surprised when she offered to refund this salary if her resignation was accepted. I told her when the board learned of her fairness, it would go a long way to influence the members to grant her release, if anyone could be secured to take her place.

January 28. Miss Chadwick came to me this morning as happy as a fifth grader at 4 P. M., saying she had found a person to take her place—Miss Martha Stephens, living some distance in the country. I began to sweat as I saw a variety of undesirable possibilities, and Miss Chadwick continued, "I called her up and she is willing to take my place." Miss Stephens is a first-class young woman, a social leader, comes from an excellent family, but she is not of the material out of which high school teachers are made. While we were talking she phoned about the position. Her people are influential. I hope this tangle can be straightened out without too much embarrassment.

January 29. The board had a brief meeting tonight. Miss Stephens had not made application. A Miss Wright recommended by the nearby Normal was elected. Miss Chadwick was released with no deduction from her salary.

January 30. The Commercial Club had a meeting tonight and as the room in which they ordinarily meet was too small, it was decided to hold the meeting in the circuit court room, as it had been in use all day and was warm. The entire high school, the teachers and a host of patrons were present. Mr. Linacre put the proposition—a \$50,000 bond issue for a high school. Then Mr. Ferguson spoke briefly outlining the needs. Then Mr. Baldwin spoke stating he understood the college would open again this fall and it would take care of the extra number in the high school as it had formerly and that he had learned from long experience school people cry a long time before they are hurt. Mr. Ferguson was on his feet in a minute to inform him every charge made was true, that all knew his (Mr. Baldwin's) reason—had no children, never had any—and had stood against the improvement of the school for years. E. J. Eldon, county superintendent of schools, made a short talk in which he showed how other towns round us had built high schools and this community had the wealth if it cared to build. Several spoke for and against the issue, some for a new building for the grades as well as the high school and one against any more taxes till we saw when we were going to have peace. A motion was passed to postpone the matter till the next regular meeting two weeks hence.

(Continued on Page 44)

A STUDY OF A TYPICAL CITY OF THE SOUTH IN RESPECT TO SCHOOL MAINTENANCE*

Frank F. Bunker, Chief of City School Division, U. S. Bureau of Education

The Early Struggle to Organize the System of Columbia, South Carolina.

The school system of Columbia, South Carolina, was not inaugurated without a bitter struggle extending over several years and contested at every step by citizens who protested against "taxing one man's property to educate another man's child." Indeed, the movement toward a State-supported, State-controlled system which would provide free schooling for rich and poor alike was retarded in South Carolina as in other Southern States. From colonial days well-to-do families had attended to the education of their own sons and daughters, in many instances sending them abroad for their training. To meet the need of those who prized education, yet could not afford the expense of European schools, a swarm of private pay schools had arisen. It had long been the policy of the State to leave elementary education to the parents, and of the poor particularly to private and parochial efforts, and to associations, such as the Hibernian, the German, and other societies of national scope.

In 1811 the State provided a fund the income from which was to secure to every citizen the benefits of an education, but it included the unfortunate provision that "if the fund should prove inadequate for all applicants, preference should be given to the poor." The fund was small and was entirely absorbed by the preferred class. Children of the well-to-do were excluded, and the schools, in so far as they were independent institutions, degenerated into pauper schools. Only those could avail themselves of the benefits of the measure who accepted it as charity or who made a declaration of pauperism. Not until 1868 was constitutional provision made for the appointment of a State superintendent and for the establishment of "a liberal and uniform system of free public schools throughout the State."

In part, then, due to a strong sentiment favoring private-school instruction or instruction within the family by means of tutors; in part due to the stigma of pauperism which the schools inherited from a former period; and in part due to the impoverished condition of the South following the war and from which the country was slow in recovering, support of public schools was reluctantly given and in meager amounts only. Indeed, in Columbia long before the close of the first year's session the maintenance fund was completely exhausted. The 1-mill tax, so begrudgingly allowed, yielded but \$3,200 and much of this had to be expended in rehabilitating the two buildings which the trustees of Columbia Academy had permitted the school commissioners to occupy. These buildings were constructed so as to house the teachers and their families on the upper floors, while but two rooms on the ground floor of each building were reserved for classroom purposes. Inasmuch as the tax levy had been secured with the understanding that a nine-months' term would be held, it was felt that failure to keep open for the stipulated time would mean a loss of confidence endangering a levy for the following year; so special efforts were made to keep the schools running for the designated time. Interested parents contributed amounts; the city council appropriated \$900; and friends in Columbia and elsewhere supplemented these sums with sufficient to enable the school officials to meet all of their obligations.

Efforts to Obtain Suitable Buildings.

This ultraconservative attitude of the citizens of Columbia in respect to adequate support of their schools is well illustrated by the story of the efforts made to secure proper seating facilities for the children of the city as the population increased. Tho the public-school system was organized in 1883 and housed in borrowed buildings, it was not until fifteen years later, in 1898, that any provision was made for additional buildings, and even then only a two-room building known as the Blossom Street School was erected. In 1903, or twenty years after the organization of the schools, the equipment consisted of but five buildings, valued in the aggregate at \$22,500; furniture valued at \$4,000; and school lots worth about \$27,000. The situation was so bad as to lead the superintendent to say in his published report of that year:

Well-informed persons have stated that South Carolina has the poorest school buildings in the United States, and that Columbia has, for a city of its importance, the poorest buildings in South Carolina. It is humiliating to say it, but this statement is unquestionably true, especially with reference to Columbia.

Three years later, in his 1906-7 report, the superintendent again speaks of the inadequacy of building facilities saying:

In recent years, the city has spent \$700,000 on permanent improvements, but of this large amount only \$50,000 was used in the construction of new schoolhouses. The record, then, is that 93 per cent of the funds invested by the city in permanent improvements during the past 10 years was used in constructing sidewalks, engine houses, opera house, sewers, and waterworks, while only 7 per cent went to school buildings. It is doubtful if this showing, as discouraging as it is, would have been made, had not the school board appropriated half the amount used for the erection of the schools from the regular income to the schools, while the teachers were being paid salaries sufficiently small to make living a burden sufficiently large to prevent them from concentrating their best efforts on their school work.

Efforts to arouse the public to a sense of the worth of their schools and to the realization of a need for proper buildings of a modern type were made from time to time, but yielded no tangible results for 22 years. In 1905, however, a building program was entered upon which gave, within the next twelve years a group of new buildings, for the most part, well lighted, well ventilated, with proper means for adequate heating, with modern sanitary conveniences of approved type, and with pleasing architectural appearance. This program, completed with the erection of the present high-school building, provides a total seating capacity of 5,766. Inasmuch, however, as the 1917 report shows an enrollment of 6,104, with an average daily attendance of 4,555, it is clear that the housing accommodations for the children of Columbia are barely sufficient for the present and must be increased with the growth of the city and with better attendance.

The building program cost about \$465,000, of which amount only \$250,000 was raised thru the issuance of bonds. Of the remaining \$215,000, \$40,000 was a bequest from a citizen who gave, also, four acres of valuable land for a school site; \$76,000 was allotted by the city council from the general funds of the city; while the school commissioners were obliged to

divert the remainder, nearly \$100,000 in the aggregate, from its exceedingly meager maintenance fund, which was never intended to be used for building purposes.

In short, a city, now of 35,000 population or more, with an assessment roll of \$15,500,000, with a school enrollment of 6,104 pupils, and with a school system now in its 35th year has outstanding in bonded indebtedness for school purposes only \$250,000 — now \$273,000, as \$23,000 was assumed when two county school districts were annexed. At first glance this low bonded indebtedness may seem commendable, but in point of fact, when it is recognized that this low record has been obtained at the expense of that proper equipment and that generous maintenance essential to strong internal school work, the situation is but another indication that the citizens of Columbia either have not been informed in a forceful way of school needs or else the old indifference to the importance of good teaching and the conditions essential to good teaching still exists.

The Inadequacy of the School Maintenance Tax.

The history of local tax levies for school purposes, likewise, affords a criterion for judging of the tangible interest which the citizens of the community take in their schools. When the school system of Columbia was organized, the local rate was fixed at 1 mill on an assessment valuation of \$3,200,000. The rate was raised to two mills in 1884 on about the same assessment, and the two and one-half mills in 1890 on an assessment of \$3,500,000. During the period the state constitutional tax had remained constant at two mills, which, prorated on the basis of enrollment, yielded Columbia less than \$4,000 annually. In 1895, however, the constitutional convention increased the state tax rate to three mills, where it has since remained. This increase of one mill by the state was at once offset by the citizens of Columbia, who decreased their city rate, putting it back to two mills, despite the fact that the average daily attendance at the schools had risen from 864 to 1,825, whereas the assessment roll had barely reached \$4,250,000. That is to say, during the first twelve years of the life of the public schools of Columbia, whereas the average daily attendance had increased 111 per cent, the amount received for maintenance from State and city taxes had risen from \$8,540.81 in 1883-84 to \$15,895.45 in 1896-97, an increase of 87½ per cent only. Here the local tax rate remained, that is, at two mills, for the next 20 years, or until 1916, when it was increased to five mills.

This increase in the city tax rate for school maintenance, granted in 1916, was forced on the people's attention for the reason that the adoption of a state-wide prohibition law automatically abolished the dispensary fund, which the Columbia schools had been sharing with other schools of the state and county in steadily increasing amounts since 1900. This fund was derived thru a constitutional act, passed in 1895, whereby the net profits of the sale of intoxicants by dispensaries was to accrue to the schools and be distributed among them on a pro rata enrollment basis. Later the state plan was changed to a county system on a local option basis, and so continued until abolished in 1915. In 1912-13 Columbia's share of the county dispensary fund, based on enrollment, was \$17,385.10, which was 35% per cent of the entire fund. It was urged, however, that inasmuch as most of the intoxicants sold in the county were consumed by the citizens of Colum-

*From U. S. Bureau of Education, Bulletin, 1918, No. 28, entitled, *The Public Schools of Columbia, South Carolina*.

School Board Journal

bia, she was entitled to a larger proportion of the returns. This contention was considered reasonable, and thereafter, until the system was abolished, the Columbia schools received 50 per cent of the fund and the schools in the county lying outside the city limits were apportioned the remainder. To meet the deficit brought about thru the termination of this arrangement, an increase in city taxes of three mills was allowed, thus raising the total city rate for school maintenance to five mills.

The Way Columbia Apportions her Income.

Yet another means of determining how much interest of the kind that counts the citizens of Columbia are taking in their schools, lies along the line of determining how Columbia spends her money, and the proportion of it which she gives to her schools in comparison with what other cities of the country are doing. The basis for coming at Columbia's rank in respect to this matter is to be found in the tables of statistics compiled by the Census Bureau for 1916 and issued under the caption: "Financial Statistics of Cities Having a Population of over 30,000." Table 13, of this publication, shows that Columbia expended during 1916 \$11.31 per capita of population (the 1915 population estimate of 34,058, made by the Census Bureau, was used) on her municipal activities, and that the amount was distributed among these activities in the following way:

For police protection, \$1.95; for fire protection \$1.58; for health and sanitation, \$1.02; for the extension and improvement of streets, \$1.99; for charity, \$0.74; for libraries, \$0.02; for parks and playgrounds, \$0.56; and for schools, \$2.29. The remaining \$1.16 of the aggregate amount went for overhead expenses of city administration.

In themselves, these figures mean very little. Not until they are compared and contrasted with the expenditures of other cities for the same purposes do they begin to take on meaning. The table which follows shows how the distributed expenditures of 213 cities look when viewed as an average.

Distribution of city expenditures.		
Purposes	Columbia	Average of 213 cities
Police department	\$ 1.95	\$ 2.10
Fire Department	1.58	1.65
Health and sanitation	1.02	1.90
Street department	1.99	1.91
Charities	.74	1.34
Libraries	.02	.24
Parks and playgrounds	.56	.67
SCHOOLS	2.29	5.77
All other purposes	1.16	3.11
Total per capita expenditure	\$11.31	\$18.69

While this comparison helps us to see where Columbia stands in relation to the actual average expenditure of the 213 cities considered, yet, as her total expenditure is considerably less than the total average expenditure of the list, another table is needed to make her rank in this matter perfectly clear, and that is a table showing the proportion each item bears to the entire expenditure. This table follows:

Ratio of school expenditure to total expenditures.		
Purposes	Columbia	Average of 213 cities
	Per cent	Per cent
Police department	17.2	11.2
Fire department	14.9	8.8
Health and sanitation	9.9	10.2
Street department	17.6	10.6
Charities	6.5	7.2
Libraries	2	1.3
Parks and playgrounds	4.9	3.6
SCHOOLS	20.2	30.8
All other purposes	10.4	16.3

From this table it is apparent that, as compared with the average of 213 cities, Columbia's chief interest is in the police, fire, and street departments; that her interest in health and charity is somewhat less than the average of the cities listed; and that she is decidedly lukewarm in the financial attention which she devotes to her library and to her schools. Two-tenths only of Columbia's expenditure go to the schools, whereas of the 213 cities of the country

considered in these statistics the average expenditure for public schools is three tenths of the aggregate. That is, Columbia's proportionate expenditure for the schools would have to be increased 50 per cent to bring her rank up to the average of the cities of the country.

In respect to this matter of the part of the aggregate annual expenditure which goes to the support of the local schools, Columbia stands No. 5 from the bottom of the list of 213 cities. Galveston, Tex., gave but 18 per cent of her money to her schools; Tampa, Fla., 18.9 per cent; San Francisco, 19.9 per cent; Savannah, Ga., 20 per cent; Shreveport, La., 20 per cent; Columbia, S. C., 20.2 per cent. Eliminating Galveston and San Francisco, in view of recent disasters, which have necessitated almost the complete rebuilding of both cities, we find that Tampa, Savannah, and Shreveport alone stand between Columbia and the bottom of the list; furthermore, only the small matter of 1.3 per cent prevents her from having that rank as it is.

The Amount Columbia Expends on her schools In Comparison with Cities of the Same Class.

The foregoing ranking is based on the proportionate expenditure for schools among the several municipal departments of the cities considered. It will be interesting to learn where Columbia stands in relation to other cities in respect to the total amount of money actually expended annually for schools, for of course bills must be paid in money and not in per cents.

Again referring to the Census Bureau's figures, we find that 118 of the 213 cities expended \$5 and above, per capita of population, on school maintenance, 1 of these being in excess of \$10; that 80 expended between \$3 and \$5; that 10 expended between \$2.30 and \$3; and that 5 only spent less than \$2.30. These are: Jacksonville, Fla., \$2.13; Portsmouth, Va., \$2.21; Shreveport, La., \$2.23; Mobile, Ala., \$2.28; and Columbia, \$2.29. So here, again, in terms of amounts actually apportioned to the schools from city income, Columbia ranks No. 5 from the bottom.

The apparent indifference to school needs stands out even more strikingly when considered in conjunction with her rank among the cities with respect to the aggregate municipal expenditure actually made for all purposes. As we have seen, Columbia expended an aggregate from city sources for all activities of \$11.31, but there were 58 cities in the list which expended less than this sum. So, putting these two facts together, we draw this conclusion: In 1916, whereas Columbia stood No. 59 from the bottom in her total city expenditure, she stood No. 5 from the bottom in the proportion of that expenditure which she gave to her schools.

So far we have been considering merely what Columbia has done with her city taxes. It will now be of interest to determine Columbia's rank among the cities of the country in respect to the total annual amount derived from all sources, which was expended by her school department, exclusive of the cost of buildings and sites, per capita of pupils in average daily attendance. The statistical facts necessary to make this comparison are to be found in the report of the United States Commissioner of Education for 1917, the figures therein given being based on returns for the school year 1915-16. Combining the facts taken from several

School maintenance expenditure per pupil in average daily attendance for the cities of the United States, in 1915-16.

CITIES

Cities of the United States (all above 5,000 population).
Cities of South Atlantic States (all above 5,000 population).
Cities of South Carolina (all above 5,000 population).
Cities of South Carolina (all above 25,000 population).
Columbia

tables in the commissioner's report, we get the following results:

From this tabulation it is evident that even if Columbia doubled her annual maintenance expenditure per pupil she would still fall short of the average amount expended by 1,241 city systems of this country by over \$3 per pupil. She would have to increase her expenditure by 42 per cent to reach the average expended by the cities of the South Atlantic States. She is ahead of the average of all of the cities of her own State, large and small, by \$4.43, but when the small places are excluded, and she is compared with the cities of her own population group, i. e., cities having a population of between 25,000 and 100,000, which is the grouping used in the commissioner's report, she is again below the average per pupil, this time by \$1.76.

Again, among the 179 cities in Group II (25,000 to 100,000 population) of the commissioner's report, there were but two expending a less annual aggregate for 1915-16 than Columbia. These are Warwick, R. I., whose expenditure was \$4,292 less, and Lewiston, Me., with \$453 less. However, in 1916 these cities had an average daily attendance for the year of but 1,857 and 2,426 pupils, respectively, whereas Columbia's attendance during the same period was 4,029. As regards other cities in her own population class, then, it is obvious that Columbia makes no showing at all. Indeed, her rank, with this same matter of annual expenditure for school maintenance in mind, among the cities of Group III (cities having between 10,000 and 25,000 population) is not flattering. In this group there are 372 cities, of which number 204 expended a larger total on their schools than did Columbia. The average amount which these 372 cities allotted was \$99,047, which is \$15,457 more than Columbia spent, and these comparisons, it must be remembered, are with cities ranging from 10,000 to 25,000 in population.

Citizens Point to a High Tax Rate. Is It High?

Almost invariably, when effort is made to secure increased maintenance for the schools of Columbia, the general property tax is pointed to as a sufficient answer. It will be of interest to look at the facts.

Referring once more to the Census Bureau's figures, this time turning to Table 32, we find that the property owner of Columbia paid for all purposes during 1916 a tax of \$36 on every \$1,000 of assessed valuation. Running over the list of 213 cities again with Columbia's relative place in mind, we find that 177 cities paid less than \$36, while 35 cities, only, paid more. If this alone were taken into account, those who point to the high tax rate as a sufficient justification for not increasing school allowance would have some solid ground on which to stand, but those who make such a reply ignore one essential factor in the matter, and that is the proportion which the assessed valuation bears to the actual value. This same census table shows that the basis used by Columbia in making up her assessment roll was 25 per cent of the actual value. That is, the valuation upon which the property owner actually pays his tax is approximately only 25 per cent of the actual value of the property. "The reported basis of assessment in practice," the compilers of the statistical table state, "is for most cities an estimate, furnished by city officials, of the

Total expenditures (not including buildings and sites).	Pupils in average daily attendance	Average expenditure per pupil in average daily attendance
\$256,941,963	5,762,197	\$44.60
12,313,538	418,062	29.45
500,383	30,695	16.31
207,987	9,287	22.50
83,590	4,029	20.74

percentage which the assessed valuation of property forms of its true value." If, then, the taxes were based on actual value instead of assessed valuation, the general property tax rate for Columbia would have been \$8.94 per thousand instead of \$36. Comparing this corrected rate with the rates paid by the other cities on the list, corrected in the same way, we find that every city of the entire list except three has a higher tax rate than Columbia. These exceptions are: Roanoke, Va., \$7.76; Charlotte, N. C., \$7.86; and Easton, Pa., \$8.62. It is clear, then, that the true tax rate (State, county, and city) of Columbia is not high; it is low. Indeed, it is very low, for it comes within three cities of having the lowest tax rate of all the cities of the United States having a population of 30,000 or over. The person, then, who replies to the appeal for more money for the schools by saying that the tax rate is high utters but a half truth which is completely misleading in its effect. Indeed, the tax rate in itself is no criterion whatsoever, tho popularly held to be such. It is the rate or basis of assessment in conjunction with the actual tax rate that must be considered in order that a city's rank in respect to taxation shall be properly determined.

The tendency among cities is, unquestionably, to make the assessment valuation tally more and more closely with the true value, thus avoiding the misconception which inevitably arises where no such correct basis is used. Of the 213 cities listed by the Census Bureau, 122 reported an assessment basis ranging from 75 to 100 per cent of the true value; 48 have a basis ranging between 50 and 75 per cent; 30 report a basis between 30 and 50 per cent; while 13 only report using 25 per cent, or a percentage lower than 25. It is in this last group that Columbia falls. Invariably the cities having a high assessment basis have a relatively low general tax rate; whereas, in general, those having a low assessment percentage must have a corresponding high general tax rate. It would appear that there are many reasons for concluding that this movement among cities looking toward a closer approximation to the true value when the assessment roll is made up is a commendable one.

Citizens Claim That the City Is Poor. Is It Poor?

One other statement is frequently heard, when the question of school maintenance is raised, namely: "Columbia is a city of poor people and any increase in outlay will work an undue hardship on her property owners." The statement that the South is poor and that southern cities are struggling along against an almost insuperable economic burden has been made so often that the people at home, as well as the country at large, have come to believe it. In consequence, when much needed reforms are denied on the ground that the poverty of the community will not permit the cost, the answer goes unchallenged. Once, again, an examination of the facts will prove illuminating.

The Census Bureau, referring again to the report "Financial Statistics of Cities" (1916), Table 32, gives the true value, estimated by city officials themselves, of the property in 213 cities of 30,000 population or more which is subject to a general property tax. This estimate is given in terms of per capita of population, so that a comparison on exactly the same basis among these cities is easily made. The facts are that Columbia, with a per capita true value of \$1,836, as stated herein, exceeds the average of the 213 cities by \$463; that she exceeds the average of her own group of cities (30,000 to 50,000 population) by \$718 per capita; and that out of the 213 cities listed by the Census Bureau there are only eleven having a higher property



THREE PROMINENT WOMEN STATE SUPERINTENDENTS OF SCHOOLS.

Left to right: Miss Lorraine E. Wooster of Kansas; Miss Anne Webb Blanton of Texas; Mrs. Mary C. C. Bradford of Colorado.

value per capita of population. A table showing these facts follows:

Estimated true property value per capita of population.

Average of 213 cities.....	\$1,375
Average of 86 cities (30,000 to \$50,000 population)	1,118
COLUMBIA	1,836
Pasadena, Cal.	1,882
San Diego, Cal.	3,106
San Francisco, Cal.	2,343
Stockton, Cal.	2,195
Shreveport, La.	2,053
Boston, Mass.	2,075
Brookline, Mass.	3,883
Newton, Mass.	2,006
Springfield, Mass.	1,842
Charlotte, N. C.	1,999
Madison, Wis.	1,903

It is not true, then, that Columbia is a poor city. She is a rich city. Indeed, judging by the estimated per capita value of taxable property, she is one of the twelve richest cities in the United States. Even tho this estimate, which is based upon statistics of the Census Bureau collected from city officials themselves, should be too large, nevertheless it is clear that Columbia is financially able to do for her schools all that needs to be done.

Perhaps Columbia is Not Fully Informed About the Needs of Her Schools.

A community thinks as individuals and feels as individuals, but when it acts it acts in its corporate capacity. Before it acts as a corporate body the individuals constituting it must have thought to such purpose and felt to such purpose that a forceful minority, at least, have come to agreement. Then, and then only, can the community in its corporate and legal capacity be expected to carry into execution the cherished proposal. Furthermore, a community, again in its corporate capacity, never acts until it is compelled to act, especially when it comes to increasing taxes, for its representatives have been told in ways unmistakably plain that in-

creasing taxes is a grievous matter, almost, indeed, as much to be feared as committing the "unpardonable sin." The first and necessary step, then, in any plan contemplating increasing the maintenance income of the schools, or, indeed, of any other group or municipal activity, is to enlist the active interest of individuals, as many in number, and so representative in character, that their demand will irresistibly impel the community, as a corporate body, to take the desired action.

It is a mistake to expect the men who chance at the moment to be the legal representatives of the community to take the desired action upon their own initiative. It is a mistake also to think that an appeal to them alone will suffice. As individuals, they may be quite in accord with the proposal, but unless it can be shown that the project has won the ear of the community and that the community desires the requested action, city officials, as the community's trustees and spokesmen, cannot, neither should they, commit the community to the plan. A community, therefore, and its representatives also, may appear to be indifferent to a given matter, whereas, in point of fact, those vitally concerned in it have not adopted the methods and taken the steps which are necessary to arouse the community to such interest that action will follow automatically and of necessity.

Responsibility for initiative in matters pertaining to the schools ought, of course, to rest with the board of education, the superintendent of schools, the principals, and the teachers. They know most about the kind of service which the schools are giving to the community; they are the ones who know most about the present and the future needs; in fact the community expects these officers and teachers to take the lead in informing it of the schools' work, of their needs, and to suggest concrete plans for meeting these needs.

It is not sufficient, therefore, if nothing more be done than for the board of education formally to request of the tax levying body an advance in rate. Those responsible must first present their case to the people who make up the community. When the people are convinced of the needs and are willing individually to be taxed to meet it, there will be no objection made when the matter is put up to the officials who fix the rate. The community in its corporate capacity will have spoken and action will inevitably follow.

The established method of winning the active attention of a community is that of publicity, and no opportunity for informing the people about their schools—their aims, their work, their cost, their problems—should ever be let go by. Thru the columns of the local press, thru bulletins issued on special phases of school work, thru talks before civic bodies on matters pertaining to education, thru exhibits of pupils' work which will arouse the collective interest and pride of the parents, thru the medium of the parent-teachers' associations, and in many other ways easily discoverable, there can be kept up a constant dissemination of news about the schools. Moreover, it must not be overlooked that the parents of the children who are in school are the people who make up the community group and who determine what tax levying bodies shall do. It ought not to be a difficult matter to convince the parents of the educational needs of their own children, nor of the value of what the schools are doing, nor of the necessity for concerted action to secure relief. Doubtless it was this fact which the mayor and aldermen of Columbia, who constituted the "board of visitors" of 1893, had in mind when

(Concluded on Page 79)

Age Gradation and Grade Grouping

Leonard H. Campbell, Principal English High School, Providence, R. I. Formerly Principal Bridgman School



In every large school grouping of pupils into classes is a problem that confronts the principal each term. The methods used are various. It has been customary to group (1) alphabetically, (2) by groups according to source, (3) by scholarship. The alphabetical method has nothing to recommend it except that pupils, good, bad, and indifferent are mixed in fairly even proportions and teachers can feel that there has been no favoritism. The group method is similar in its working out but groups are apt to vary according to source and some teachers get poorer, some better groups than others. Groups so mingled reflect different standards of teaching, as well. The scholarship method would seem, on the face, to be excellent, but the differing standards of teachers who have marked the work of the pupils for the previous term and the varying abilities of pupils in different subjects make a just classification impossible. Moreover, heartburnings and dissatisfaction are rife among the teaching force, because some feel that they are loaded down with the failures and repeaters, while others are favored with the brightest and best. An experience of a dozen years in a large building was enough to show the unsatisfactory results of the different methods.

A study of the ages represented in the grade groups in the Bridgman district, Providence, R. I., showed that pupils, because of foreign stock or poor environment, were reaching grammar school badly retarded, and that the condition prevailed until the elimination of the least fit thru their seeking work at the age of fourteen, produced a balance between the accelerated and the retarded pupils at about the seventh grade. An effort was made with the approval of Superintendent Isaac O. Winslow to give special instruction to those who were retarded to the greatest degree,—about two years. It immediately became apparent that the plan, if of value to the special class, would be of value also to the others—for, grouped with their own kind, it was possible to work for them and with them to better advantage.

Accordingly all the pupils in the school, including those entering from the primary schools, some 1500, were classified (1) by grade, (2) by sex, (3) by ages in years and months. This was done by means of a simple card catalog which allowed quick arrangement and classification. The total number of pupils in a grade being ascertained, it was easy to determine the number of rooms to be used by that grade. The total number of boys and girls was divided separately by the number of rooms so that the ratio between the sexes would remain somewhat constant among the rooms. This was especially essential in order to equalize the classes for singing and for the play schedule. If five rooms, for example, were to be filled by a given grade, the oldest fifth of the boys and of the girls would be assigned to one room, the youngest fifth to another and the other groups, in a similar way, to the intervening rooms. In a grade group of several rooms it was found that

differences as great as four years in age would be found between the rooms containing the youngest pupils and those containing the oldest. Immediately an objection will spring to mind:—Some teacher would have a room full of badly retarded pupils.

In order to prevent dissatisfaction, a rotating plan was adopted. The teacher having the oldest and badly retarded class one term would receive the most accelerated or brightest class the next and would take in turn each age group before receiving the oldest group a second time. At the same time the teacher was told that everyone, principal, supervisors, and superintendent would be kept informed as to the quality of class she was teaching, and that she must not be worried over the standing of her class in examination. She should simply do the best she could with the class and suit her instruction to their needs.

The result was that teachers took the classes in turn cheerfully, feeling that it was fair that the burden should rotate and they often found that the older retarded pupil presented such an interesting problem that they asked to be assigned another similar class at once. The idea of age classification was adopted with some hesitation because it was understood perfectly that mental age differs much from chronological age. But it was soon perceived that chronological age was a satisfactory basis for classification within the grade, altho not to be thought of in the school as a whole. The result of the trial of the plan for several terms may be summed up as follows:

1. The teachers are contented.
2. Classes are even in quality.
3. Instruction aimed to the class suits all. The teacher no longer teaches at the middle of the class with the lower end not understanding and the upper end impatient and idle.
4. Results are uniform, class averages being raised and all pupils maintaining about the same level of scholarship.
5. Non-promotion is cut in half because the slower pupils are competing against their own kind and not against the brighter pupils.
6. Automatically, maximum and minimum courses are developed by the teacher of each class.
7. Youngest classes lead in scholarship. Oldest classes are always lowest in scholarship and those whose ages are intermediate display scholarship and achieve results in proportion to their position in the age grouping.
8. Pupils are more contented and work better being associated with those of similar age and power.
9. Retarded pupils who are likely to go to work without finishing school can be easily reached by vocational advisers and their work planned to suit their needs. It was customary to give pupils to this class manual training, sewing and home making even tho the limited facilities did not permit other classes of the same grade to receive this instruction. It was felt that they should receive the work because

they might not get it otherwise, while the younger pupils of their grade would advance to the work and receive it before graduation. Occasionally a bright pupil, retarded because of illness or change of residence, would be found among the oldest pupils in the grade under this age classification. In such cases the pupil immediately showed his superiority and was moved to an age group of similar mental power in the same grade, that is, a younger group. The reverse action might be taken in the case of a young but a dull pupil who had been advanced in some way beyond his power.

10. One term's experience was sufficient to develop a system of classification that enabled the principal to classify and arrange 1500 pupils with greater ease than under any other system. With some slight clerical work done by teachers at leisure and in advance, the whole work has been accomplished in an hour. The results seem to justify a great increase of work of rearranging the classes semi-annually, but there was less work, not more, under this system.

While this system was being developed, an extremely interesting trial of the Terman revision of the Binet-Simon test was given with the result that the age groupings, the mental attainment in grade work, and the intelligence quotients, or ratings, of the pupils, were found to be in exact harmony. The two systems were formed to secure the same results,—accurate classification according to mental ability. Age classification made unnecessary the psychological examination of all the pupils. The exceptional cases only needed the tests and the time necessary for testing was much decreased. The work involved in such testing was done by special volunteer teachers under the guidance of Mr. Richard D. Allen, then assistant principal, but now vocational Guidance Director for the city of Providence.

IN APPRECIATION OF BOOKMEN.

Thousands of the best businessmen, schoolmen and teachers will testify any time, any where, that the book representatives are the most reliable, versatile, resourceful, energetic, enthusiastic group of salesmen in the world. They sell helpful news and hints, cheer, hope, and courage without stint, and never under any circumstances do they collect one cent in fees.

They drive away fear, reluctance and weakness of every sort, physical, moral, intellectual or spiritual, and their reward is the vast numbers of their steadfast friends thruout the whole country.

They preach the gospel of growth, harmony, altruism and efficiency to all their patrons, never forgetting to smile, to encourage, and to sympathize with all the woes known to mankind.

The bookmen are the electrified cream of all selling efficiency. As a side line they offer a commodity which contains the elements of the world's erudition, used in training our youth for every profession, vocation or occupation in the country.

Any group of these men working together would be able to sell either hell or heaven, hope or despair, joy or sorrow, love or hate, or any other tangible or intangible quantity, substance or belief, and the customer would be pleased with his bargain.—*L. R. Traver, Spokane, Wash.*

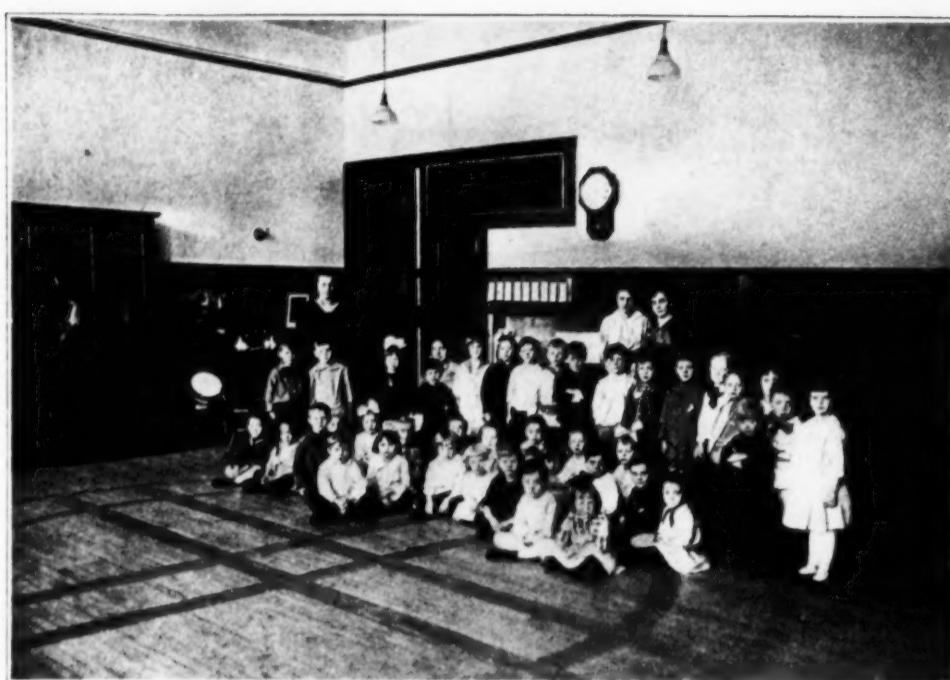
Making Healthier Children Thru Better School Ventilation

C. E. Allan

When you go into a schoolroom and see a class of peaked, white-faced children, your first thought is of course pity for them. The child is a creature of circumstances far greater than the adult human being. It has to depend upon others for everything in its young life, even to the way it should live and the kind of air it breathes.

When we think of this and of the great responsibility which the school teacher, the school principal and the members of school boards have, we wonder sometimes how many of them do as well as they do. With all the many things necessarily coming up from day to day, it is no wonder that the subject of better ventilation in the schoolroom has, in many instances, been overlooked for things of seemingly greater importance.

What is of greater importance than good ventilation? It takes its place with pure food and pure water. Without the right kind of air in the schoolroom neither the children nor the teacher can do justice to the studies. They lack the interest which the healthy growing child possesses. Is it any wonder that many of them hold back on going to school in the morning because they instinctively feel the hot, dry,



View in Kindergarten where the necessity for right ventilation begins. To remain healthy, children need plenty of pure, fresh air.



View in schoolroom showing ventilating test being made. Great importance is now being given to the proper temperature in the schoolroom.

dusty atmosphere of the schoolroom and the inevitable headaches and languid feelings which come over them later in the day.

Good ventilation is not alone a question of good health, it is a question of good business, and a subject of national interest because it means the preservation of children. We should think of it in these terms just as we would think of the other big national issues which will have a bearing on future years. Today most of us can see the big change in public sentiment over the ventilation subject and the articles in prominent national magazines and well-known newspapers show where the interest lies. These articles, written by various authorities, have caused people to think more now than ever before of the real value of the well-ventilated room and of its necessity if children are going to continue to be healthy and well and to be able to overcome more of the effects which are the results of indoor life.

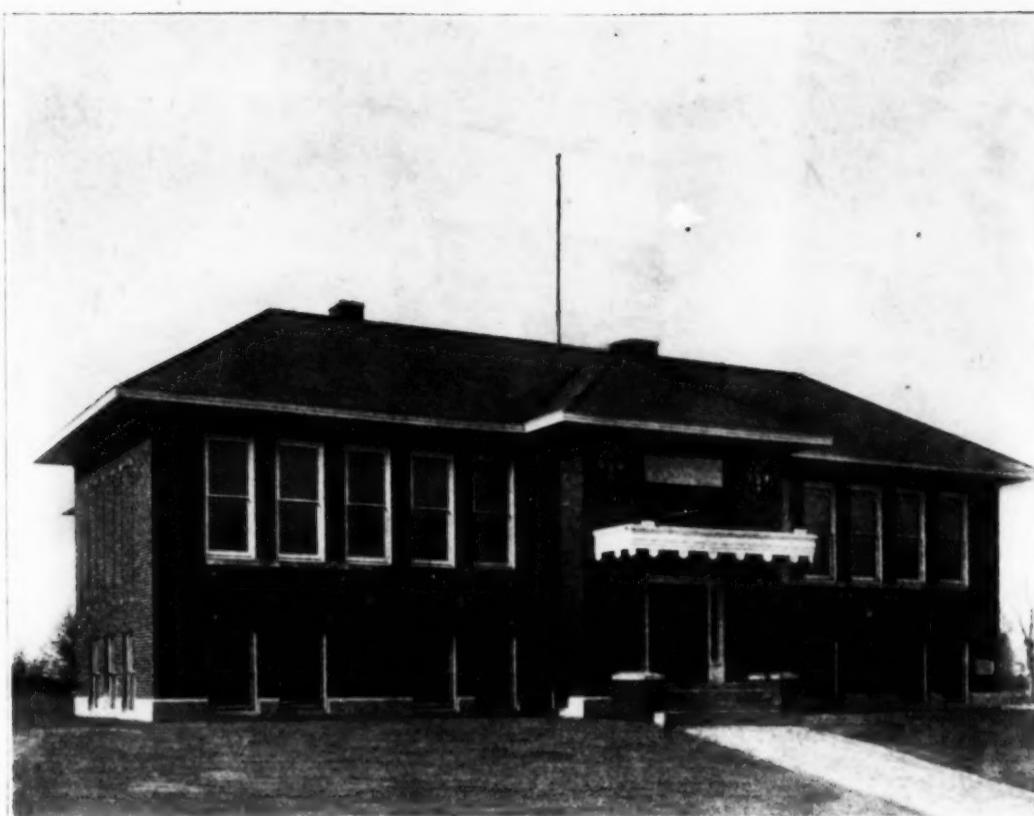
While those interested in school problems are now realizing more than ever before the necessity for supplying each schoolroom with a plentiful supply of clean, pure air, not all are agreed as to just how this should be secured. There are a variety of opinions just the same as there are a variety of opinions on many other great subjects, and yet there is one definite plan which has been proven successful and which is now relied upon to a great extent in making the schoolroom a healthful place in which children enjoy spending the day rather than rebelling at the thought of going into the hot, dusty classroom.

There are some people who advocate the plan of throwing open the windows and getting the fresh air by direct methods. They claim that that is all that is necessary for the proper ventilating of the classroom. These people, however, either do not stop to think of the disadvantages of such a method or else, if they do think of

them, they cannot suggest a remedy and therefore stick to the one side of the question. It seems like an easy and small matter to throw open the schoolroom window in order to obtain fresh air and when the room becomes chilly close the window. It sounds simple enough, but as a fact it is a serious matter. Such a method is all right for the balmy day in June, but what about the cold raw days of fall, winter and spring, when the blasts of cold air come driving thru the windows and the children located near such points have to suffer? Such a method is not only unhealthful but is not comfortable. It takes the children's minds away from school studies and open window ventilation not only



The dinginess of the city is illustrated by the view showing one part of the building cleaned, the other part not cleaned. Outdoor air is not always pure air.



SANDCREEK TOWNSHIP SCHOOL, ELIZABETHTOWN, IND.
A small school in a country district equipped with the best in heating and ventilating apparatus. Both large and small schools need mechanical ventilating equipment.

means uncertain ventilation with its dangers of colds and sickness, but the noise and dust from the streets must be considered and overcome if possible.

People who advocate open window ventilation in the schools also suggest that muslin window screens be used for ventilation. One doctor says a cloth screen so constructed admits an abundance of fresh air, but does not obstruct light and keeps out dust, snow, rain and wind. Such systems have been checked up, however, and it has been found that the cloth screen does not admit an abundance of fresh air except when the wind is in the right direction and blowing at a velocity of something over ten miles per hour. In still weather the air change thru these screens is almost negligible. There is a considerable heat loss—out of proportion to the air change and the method is undesirable for this reason. Instead of not obstructing the light, the screen obstructs the light materially. This is not so evident on the bright, sunny day, but when the sky is cloudy the amount of light in the classroom is lessened below a hygienic point.

As to the statement that muslin screens keep out the dust, careful tests and experiments have shown that while such a screen may remove some of the larger particles of the dust, it is the fine particles that pass readily thru the cloth and remain suspended for some time in the air. It is these small particles that are so harmful. They are inhaled by the pupils and the long train of irritative and infectious lesions of the nose, throat and lungs is the result.

If in planning on ventilating the school, thought is given to this subject the result will be worth untold sums in later years. The subject of ventilation is a big one and requires years of study and thought, as well as experience just the same as any other big problem. There is a sure and safe way for getting the right amount of air into the schoolroom without inconvenience or danger, and that is thru mechanical systems of ventilation. Hundreds of the most prominent schools in the country are now using mechanical ventilation with the result that day-in and day-out the classrooms are supplied with clean, pure air: cooled and humidi-

is a new building. He will know about the average window temperature and local conditions and he will then be prepared to design the heating and ventilating equipment that will give thorough satisfaction.

The reason that many school boards, and principals of schools have not had the success which they otherwise might have with the ventilating of their schools has been due to the fact that they have not thought far enough to engage the services of competent men who have made a careful study of heating and ventilating conditions and who are prepared to give the results of their experience in any work which they undertake. It is only by the right kind of cooperation with experienced men and by working along definite lines that the best results can be secured.

Right now is the best season of the year in which to think of those changes in order to bring the ventilation of the schoolroom up to the proper standard. It is well to give the subject serious thought because no problem you will have in your school work will be more important. Nothing you can do from the investment standpoint will pay greater returns than the equipping of the school with the right sort of ventilating equipment in order to secure an abundant supply of fresh air to the child, day in and day out. The teachers will be better fitted for their work, they will be better satisfied and healthier, the children's attendance will be bet-



WEST TECHNICAL HIGH SCHOOL, CLEVELAND, O.
A large up-to-date city school equipped with the latest in heating and ventilating equipment.

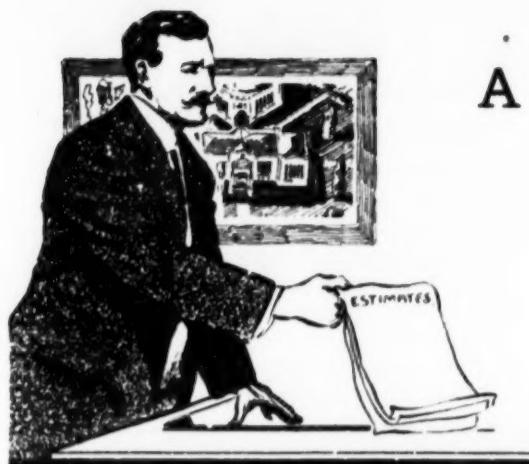
fied to the proper degree in summer and warmed and humidified to the right temperature in winter. The mechanical form of ventilation is now employed wherever careful thought and study have been given to this point. It is the only safe and sure way to secure satisfactory ventilation for the schoolroom, just the same as it is the only safe and sure way to properly ventilate the public building, the church, the hotel and the manufacturing plant.

In considering this question the first thing that should be done is to consult the trained architect. His experience will be of value because he knows the strength of materials and how to use them to the best advantage. The services of a competent heating and ventilating engineer if secured will mean that the trained, experienced man will study carefully the arrangement of rooms and the general plan of the building proposed. He will study the material of which the building is to be constructed if it

ter, there will be less sickness and the children will take greater interest in their studies. These points have been proven in hundreds of schools throughout the United States.

The subject of proper school ventilation is here to stay. No longer should a new school be built and this big subject be ignored. Proper arrangements must be made for getting the outdoor air indoors and getting it into the school in the way that will cause no inconvenience but will be found to be fresh and pure and which can be supplied to each classroom every hour of the school day. The right kind of mechanical equipment will take care of this and when properly installed will furnish the right results.

Wilmington, Delaware, under the provisions of the new school code, will receive \$55,000 more than it received last year for school purposes. Under the old law, districts were limited to two hundred teachers and the school fund was based on the number of teachers employed.



A STUDY OF SCHOOL FINANCES AND UNIT COSTS

A New Type of Report by Mr. Paul Scholz
for the San Antonio School Board



The average financial report of the board of education in an American city is a mass of bewildering figures that mean little to the citizen and that are of little interest even to the members of the school board. The faults common to such a report are its lack of interpretation, its complication of accounting details, and the absence of comparative standards by which laymen may judge what they read.

School statistics, balance sheets, and other data usually found in a school report are the raw materials of history. They may give much satisfaction in that they show on the surface that no deficit exists, that the accounts are correct to the cent, that the responsible officials are honest. There are, however, other considerations that determine the real efficiency of a report. For the historian or chronicler facts are sufficient; for the administrator and the school board member, facts must be presented so that they are useful in determining policies and planning future action. A school report must not merely afford a look backward, into the past. The wise school official will judge its utility as an instrument in looking forward and in planning for betterments. The more remediable faults which it discloses and the more lines of development and improvement which it makes clear, the better will be a report as a report. It is just these elements which render it attractive and interesting.

A financial report that sets a new standard along the lines mentioned above has been recently issued by Mr. Paul Scholz, business manager of the board of San Antonio, Tex. Its purpose is openly stated as an aid to the school board in determining future financial and educational policies and a means by which the tax payer may pass intelligent judgment on the financing of the schools. The true reason for reports could not be stated more fundamentally or clearly. The several salient facts are brought out sharply and ample means are provided for judging them. Mr. Scholz says plainly that he has sought to answer three questions concerning the city school finances:

(1) Is the money applied to the best purpose; that is, how much, relatively, goes into channels of direct instruction, and how much goes for the necessary non-instruction activities?

(2) If the money is rightly divided between instruction and non-instruction, are the costs for the main items under each in accord with such standards as have been established as reasonable for cities of the same population class as San Antonio?

(3) Are the people of San Antonio contributing as much for public education as other communities of similar size?

He suggests that the reader of the report consider not so much how well the school officials of the community have done in the past, but rather that they ask as an ultimate question: "What are the possibilities, and how nearly is our city measuring up to the best standards?" he makes no attempt to consider

the effectiveness of instruction which is within the province of the superintendent and the educational staff, but limits himself to financial matters alone. In making comparisons and conclusions he applies standards and statistics supplied by authorities of national reputation: The U. S. Bureau of Education, the U. S. Census Bureau, several studies of School Administration by Dr. George D. Strayer and Dr. Edward L. Thorndyke of Teachers College, and a study by Dr. Harlan Updegraff, now of the University of Pennsylvania.

Conditions of the Schools' Finances.

Mr. Scholz dismisses the general discussion of the local finances by the statement that the board is in good shape financially and by a brief discussion of this fact. He shows that while the school plant has been considerably enlarged during the past two years, the current expenses have been kept within the current income, without an increase of the current tax rate of 39 cents for maintenance purposes. At the close of the year 1917-18 the elementary schools had been increased by fifty classrooms over two years previous. The high school capacity had been added to by the erection of a building seating 1,500 pupils and the school census showed an increase of 3,387 as compared to the average of 2,500 for the previous four years.

The board pays all current bills monthly and during May endeavors to voucher all outstanding accounts of the school year and to book all current tax collections. The receipts and expenditures for the year are therefore practically the same as the revenue and expense. The following tables show the income and outgo of current funds during the past five years:

Table Showing Income and Outgo of Current

Funds. (5-Year Period)				
	Income From Old Year Balances	From Current Receipts	Payments From (a)	Closing Balances
1913-14.....	\$49,402	\$167,763	\$458,481	\$87,684
1914-15.....	67,684	489,223	550,664	243
1915-16.....	243	755,883	684,776	71,350
1916-17.....	71,350	579,235	550,902	99,703
1917-18.....	99,703	653,353	666,935	86,121

The permanent debt of the board was increased by \$800,000 since January, 1916, making the total bonded indebtedness \$1,319,000. This sum is offset somewhat by the sinking fund assets which have in them the required legal reserves and the surplus with which to meet the installment of the semi-annual interest.

Mr. Scholz adds to this statement of expense, a summary of the assets and liabilities of the board which we here reduce to the twelve general accounts:

Assets.

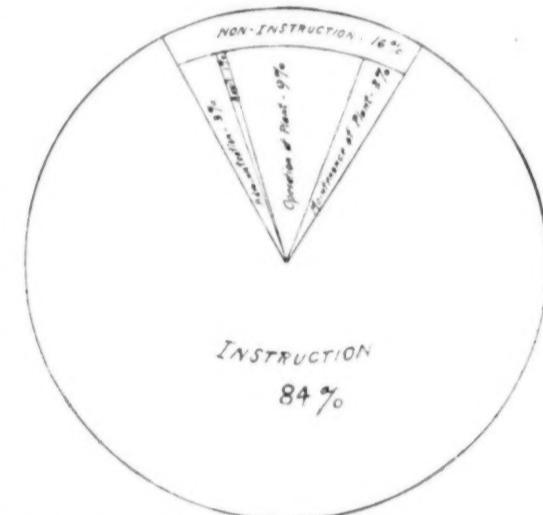
Property Assets	\$2,411,952.18
Sinking Fund	279,382.18
Building Fund	3,002.81
Brackenridge High School Library	1,871.81
Heintz Industrial School Fund...	4,793.14
Local Funds	770,196.76
Total	\$3,471,198.91

Liabilities and Funds.	
Bonded Debt	\$1,319,000.00
Sinking Fund Reserve.....	273,985.00
Building Fund	2,809.67
Local Funds Appropriations.....	762,799.00
Surplus	1,112,605.24

Total \$3,471,198.91

Analysis of the School Budget.

The bulk of Mr. Scholz's report is devoted to an analysis of the appropriation of each character of expense during the fiscal year and during the four years previous. The accompanying graph shows that 84 per cent of all money spent for current running expenses was devoted to instruction, to the pupil's supervision, textbooks and supplies and other items of direct



Distribution of Expense for Year 1918, San Antonio Schools.

instructional service. This graph may be compared with the following table, which presents the same facts for a period of five years:

Per Cent Each Character of Expense Bears to the Total Expense During Each of Five Years.

	1913-14	1914-	1915-	1916-	1917-
I. Administration	4%	4%	4%	4%	3%
II. Auxiliary agencies..	0%*	1%	1%	1%	1%
III. Instruction	80%	80%	80%	82%	84%
IV. Operation of plant..	8%	8%	8%	9%	9%
V. Maintenance (upkeep)	7%	7%	7%	4%	3%
VI. Fixed charges	1%	0%*	0%*	0%*	0%
Totals.....	100%	100%	100%	100%	100%

*Less than one-half of 1%.

Mr. Scholz adds the following comment:

"It will be noticed that a striking uniformity by character of expense throughout the five-year period is revealed by the foregoing table. As the accounting, classification, and distribution of expenditures was the same during each of the five years, it would follow that a more or less definite and uniform policy in budget-making was carried out. The expenses for Administration (general control) have been reduced from four per cent of the total in the year 1913-14 to three per cent in the year 1917-18. The cost of operating plant has increased one per cent in five years. In view of the marked increase of janitors' supplies and two

School Board Journal

increases in the wage scale for janitors, this variation would probably be considered very slight. There has been a considerable reduction in the cost of maintaining plant in good condition—from seven per cent in 1913-14 to three per cent in the year just closed. A wholesome increase in the amount spent for instructional services is shown—eighty per cent at the beginning of the five-year period, and 84 per cent at the close. By adding the percentages of non-instruction items and comparing their total with the item of direct instruction, we find that in 1913-14, twenty per cent of the running expenses was devoted to non-instruction as compared with only sixteen per cent in the year 1917-18. It is generally conceded that teaching and supervision are the most important factors in an effective school system, and that the larger the prorata of money devoted to these items and to the textbooks and supplies needed as an aid to effective teaching, the better will be the results. While no exact standards have been set up to show what would be an ideal prorating of money annually exacted of taxpayers for educational purposes, we have the result of two investigations which have a direct bearing on the subject. In a study of 103 cities of 30,000 population or over made by Harlan Updegraff, at the time specialist in school administration, Bureau of Education, Washington, we have reliable data and definite standards. The purpose of Mr. Updegraff's study was three-fold, the objects stated by him being: '(1) To provide those charged with the administration of public schools in the largest cities of the United States the means of making exact comparisons of costs between any two or more cities, with a minimum of effort; (2) to establish certain standards by which any item of expense of any city of 30,000 population or over may be measured and by means of which comparisons of expenses of this and future years may be made; (3) and to present certain conclusions, regarding urban education which a study of the statistics seems to establish. On page 11 of the Bulletin embodying the results of Mr. Updegraff's investigation we find a table of percentages which, as stated by him, 'may be accepted as indicating present standards for all cities in the United States of 30,000 population and over.'

By using Mr. Updegraff's table of percentages Mr. Scholz obtains the following interesting comparison with the local situation:

Prorata of Budget Items.

	Updegraff Standard	San Antonio for year 1917-18
Percentage of Total Expenses Devoted To		
I. General Control (overhead),	3.45%	3.59%
II. Instruction (Teachers, Supervisors, textbooks, stationery, supplies),	74.50%	83.97%
III. Operation of Plant (Janitors, fuel, water, etc.),	12.15%	8.56%
IV. Maintenance of Plant (All expenses of upkeep),	7.23%	2.79%

The above table shows that San Antonio is doing better by its teachers and pupils than most cities were doing at the time of the investigation, and that it is costing comparatively less to operate her buildings and keep them in normal condition.

For all practical purposes of administration and control of expenditures it is more important to consider *main items* of expense under each of the subdivisions heretofore discussed than to attempt to set up standards for the subdivisions themselves. In attempting to arrive at a table of measurements defining reasonable limitations within which the main items in a school budget should fall, Dr. George D. Strayer of Columbia University, in his treatise on '*City School Expenditures*', arrives at the following conclusions:

"* * * From the data given above, it is

my judgment that an ideal budget would give to each of the principal items not less than the first proportion mentioned in the table below, nor more than that indicated by the last figure, except that cities spending an unusually large amount per pupil should, I believe, spend a relatively larger proportion for teaching and supervision, and for textbooks and supplies; while the proportion spent for fuel, repairs, and janitors' salaries should increase much more slowly.'

Main Items	Per cent of Total	Per cent of Total
Teaching and Supervision.....	from 70% to 75%	from 7% to 10%
Supervision alone	from 7% to 10%	from 60% to 65%
Teaching alone	from 5% to 7%	from 4% to 6%
Janitors' salaries	from 5% to 7%	from 5% to 7%
Textbooks and supplies.....	from 4% to 6%	from 3% to 5%
Fuel	from 3% to 5%	from 3% to 5%
Repairs	from 3% to 5%	from 3% to 5%

By using the preceding table as a standard the record of the San Antonio schools appears as most remarkable. This will be seen by an examination of the next table.

A Comparison With An Ideal Budget.

Main Items of Expense	Per Cent Spent in San Antonio 1917-18	Per Cent Considered by Strayer as Ideal	
		Min.	Max.
Teaching and Supervision.....	82.01	70%	75%
(a) Teaching alone	80.73	60%	68%
(b) Supervision alone	1.28	7%	10%
Textbooks and supplies.....	1.69	4%	6%
Janitors' Salaries	6.25	5%	7%
Fuel .....	.98	5%	7%
Repairs	2.53	3%	5%

"It will be noticed that the sum of per cents, representing a maximum ideal apportionment for the main items of instruction (a, b, and 2) is 84 per cent, corresponding almost exactly to the amount spent in San Antonio for that purpose during the year just closed (1917-18). This is an important factor for the budget-maker to bear in mind in connection with any proposal to alter the existing relative proportions in expenditures.

"The items of janitors' salaries and repairs come well within the ideal limits when taken together, but janitors are paid more than the minimum, while repairs get less than what is considered a low allowance. Fuel in our city costs less than one per cent of the total expense, while five per cent is considered low. This can be explained by reminding the reader that the investigation made by Dr. Strayer was confined to 58 cities located in five New England states, where the heating problem is far more expensive and where the necessity for heat extends over a much longer period.

"Another consideration that should be borne in mind when making comparisons with Dr. Strayer's 'ideal budget' is that the cities from which his data were collected were cities of 10,000 to 50,000 population, the largest of which was probably one-third as large as San Antonio. One of the conclusions arrived at by Dr. Harlan Updegraff in '*A Study of Expenses of City School Systems*' (page 27) is that the larger the city the greater the average cost per pupil enrolled of the total cost of instruction, operation, and maintenance of elementary and high schools, and particularly of teachers' salaries, janitors' salaries, and repairs; further, 'There is no apparent tendency in the variation of the average cost of—(a) Textbooks, stationery, and general school supplies of elementary schools; (b) Fuel of elementary and secondary schools.' This will explain in part why San Antonio

spends considerably more for the main items of instruction than the percentages suggested as ideal by Dr. Strayer."

In analyzing further the expenditures for instruction, Mr. Scholz shows by a comparative table prepared by Dr. Updegraff, that the main items for cost of instruction are well within the limits set by the experience of other communities of approximately the same size. It should be added that in the communities listed, the distribution of costs is according to the standard system of accounting urged by the United States Bureau of Education, which has been in use in San Antonio and in the cities listed.

Main Items of Instruction in All Types of Schools the Percentage of Total Expenses, in Cities of 100,000 to 300,000 in 1910.

(Cost of operation and maintenance shown in separate table.)

Instruction—Main Items.

CITIES	Total of Per Cents (a to e)	Salaries Teachers (n)	of Super-visors (b)	Text-books and stationery and general school supplies (c)
1. San Antonio	83.70	80.73	1.28	1.69
2. Oakland, Cal.	80.59	78.56	....	2.03
3. Albany	78.90	72.34	1.30	5.26
4. Jersey City	78.87	74.57	1.01	3.20
5. Toledo	78.86	74.33	.61	3.92
6. Memphis	77.76	71.52	2.80	3.44
7. New Haven	77.72	67.31	6.73	3.68
8. Birmingham	76.76	67.13	9.06	.57
9. Portland	76.44	73.82	....	2.62
10. Grand Rapids	76.20	64.32	8.93	2.95
11. Columbus, O.	76.15	61.93	11.73	2.49
12. Nashville	75.81	72.10	1.93	1.78
13. Scranton	75.73	69.43	....	6.30
14. Paterson	75.72	73.40	.20	2.12
15. Spokane	75.69	68.44	.91	6.34
16. St. Paul	74.18	72.82	1.09	.27
17. Omaha	74.06	70.41	....	3.64
18. Providence	71.67	66.26	1.20	4.21
19. Syracuse	71.59	68.75	.21	2.63
20. Cambridge	70.95	68.34	.24	2.37
21. Lowell	66.91	63.62	....	3.29

Note.—The figures used are taken from Bulletin No. 5, 1912, United States Bureau of Education. Figures for San Antonio are for the year 1917-18.

A further table offers similar comparisons on the main items of expense under the heading of Non-Instruction. Here the table of percentages is reduced proportionately and is low in comparison as the percentage for instruction is high. Table No. 5.

Showing for Main Items of Expense of Operation and Maintenance of all Types of Schools the Percentage of Total Expenses, in Cities of 100,000 to 300,000 in 1910.

Non-Instruction—Main Items.

CITIES	Total of Per Cents (d to f)	Janitors' Salaries (d)	Fuel (e)	Repairs and Renewals (f)
San Antonio	9.76	6.25	.98	2.53
Toledo	11.15	4.51	4.12	2.52
Birmingham	12.37	6.12	2.78	3.47
Spokane	13.29	6.36	3.74	3.19
New Haven	13.39	8.25	4.60	.51
Portland	13.45	5.02	1.46	6.97
Oakland, Cal.	13.49	5.00	.96	7.14
Memphis	14.51	7.63	2.04	4.84
Jersey City	14.68	5.72	3.63	5.33
Scranton	14.77	3.08	3.75	2.91
Columbus, O.	15.12	7.71	3.42	3.99
Syracuse	16.14	6.51	5.76	3.87
Albany	16.46	5.85	5.20	5.41
Grand Rapids	17.32	6.16	2.37	8.79
Nashville	17.75	5.25	1.33	11.17
Omaha	18.17	7.37	3.96	6.84
Paterson	18.35	5.08	1.64	11.63
St. Paul	19.71	12.80	3.47	3.44
Cambridge	20.75	8.36	5.64	6.75
Providence	21.38	6.93	5.29	9.26
Lowell	25.01	10.70	4.80	9.51

Note.—The figures used are taken from Bulletin No. 5, Year 1912, United States Bureau of Education. Figures for San Antonio are for year 1917-18.

It should be said that during the past year the San Antonio schools spent very little for repairs and renewals and the report is frank in

(Concluded on Page 79)

Comparison of Expenses All Schools. Running Expense Only.

MAIN ITEMS OF EXPENSE (These represent 93% of San Antonio's budget for 1917-18.)	San Antonio for 1917-18	Median for 20 other cities	Reasonable limits of percentage	San Antonio com-pares with median
Instruction:				
(a) Teachers' Salaries	80.73	69.97	67.3 72.8	High
(b) Supervisors' Salaries and expenses	1.28	1.20	.7 4.7	Medium
(c) Textbooks, stationery and supplies	1.00	3.12	2.4 3.7	Low
Non-Instruction:				
(d) Janitors' Salaries	6.25	6.43	5.7 7.7	Medium
(e) Fuel .....	.98	3.68	2.4 4.6	Low
(f) Upkeep of plant.....	2.53	5.43	3.6 7.9	Low
Totals	93.46	89.83	82.10 101.4	

(Continued on Page 79)

Administrative Offices in School Buildings

William Ferdinand Ewing, Director of Business Affairs, Technical High School, Oakland, California

(Conclusion)

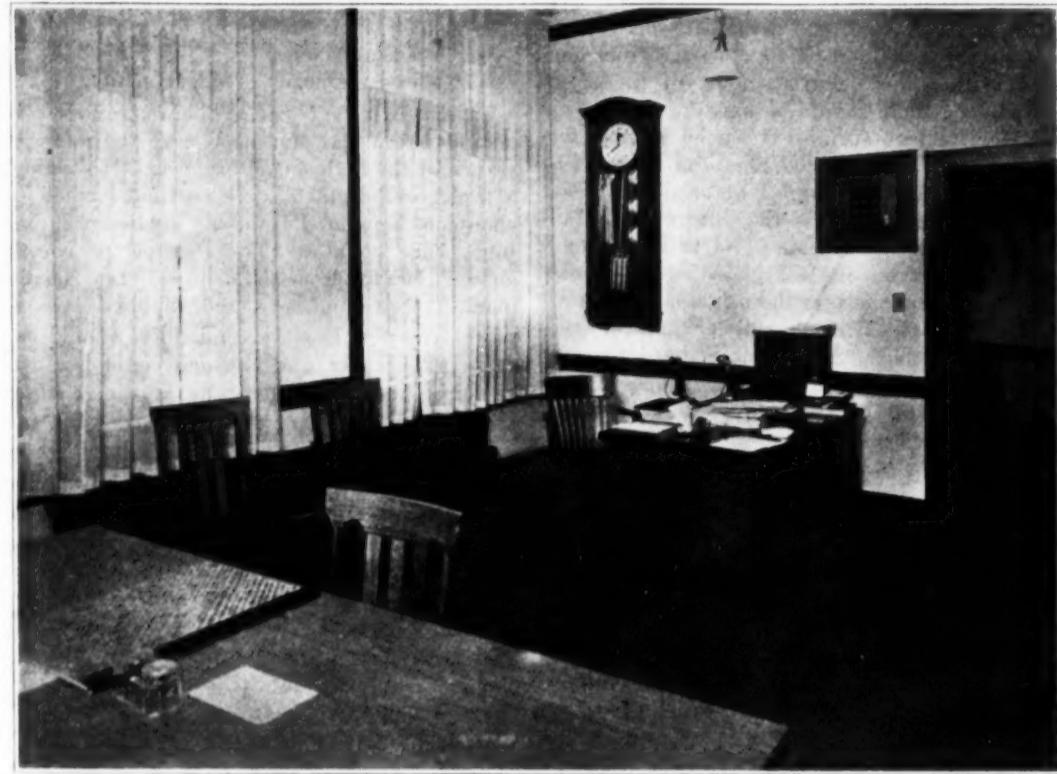
Offices for the Three Heads.

2. *Principal's Office.* Experience has shown that a large, growing high school the main corridor on the first floor is nearly always crowded when classes are passing. School officials, parents and visitors find it very difficult to go from one part of the building to another at such times. In order to obviate this difficulty we have planned an inner passage connecting the offices of the registrar, dean of boys, principal's secretary, principal and dean of girls. To the left of the principal's office is a small consulting room. Just off from the consulting room is the office of the dean of girls. To the right of the principal's office is the office of the secretary. The plan shows an outer waiting room to the secretary's office. The two are separated by a high, wide counter, at one end of which is a gate. The inside of the counter is fitted with ample shelves and cabinets for keeping stationery and school supplies. At one end the top of the counter is covered with heavy plate glass. Under this may be kept the daily program of the school. The secretary controls the entrance to the principal's office on one side and to the dean of the boys on the other.

3. *Office of the Dean of Girls.* The dean of girls has access to the consulting room opening at the right between her office and the principal's. On the left there is an entrance to the girls' rest room. It is advisable that the dean of girls should keep in touch with the girls' rest room. The latter place is sometimes abused by lazy or shiftless pupils, and it is highly desirable that the use of the room be restricted to those girls who are assigned by the dean.

4. *Office of the Dean of Boys.* This office is located between the offices of the registrar and secretary. It is easy to pass thru the waiting room of the secretary's office to the principal's office or to the registrar's immediately adjacent. The whole plan shows a fairly complete centralization of the administrative quarters. While the plan may seem elaborate, it really requires no more space than is usually found in widely separated quarters.

5. *Office of the Continuation Principal.* The continuation school principal usually finds himself an unwelcome guest. In some schools his office is in a corner of the day school principal's office. This arrangement is neither satisfactory nor convenient. Furthermore, if the continuation school is to be conducted in the afternoon as well as in the evening, the continuation school principal should have his own quarters. The plan herewith presented (Fig. 6) provides such accommodations. It will be noted that the registrar's office is comparatively large. It was made so to accommodate the crowding which



PRINCIPAL'S OFFICE, CLAWSON SCHOOL, OAKLAND, CAL.
Example of a well-appointed office in an elementary school.

always occurs at the organization of the school term. By having one registrar's office for both day and continuation school there is a centralizing of information, of reports and of records. Besides there is ample room for both day and continuation pupils. The office of the continuation school principal should be equipped with convenient filing cabinets and office appliances.

Adjoining the continuation school principal's office is a waiting room which may be used by prospective students and continuation school teachers.

Solving the Attendance Problem.

6. *An Attendance Office.* One of the big problems in a large high school is that of attendance. In some schools the attendance is handled by the dean of girls and dean of boys respectively. There are good reasons for having the attendance under the immediate supervision of these two administrative offices, but in the largest schools it would seem advisable to have a separate office for checking the attendance.

In the opinion of the writer the attendance office should be near the administrative quarters, located on the first floor not far removed from the locker rooms. One office properly equipped and furnished would be adequate for taking

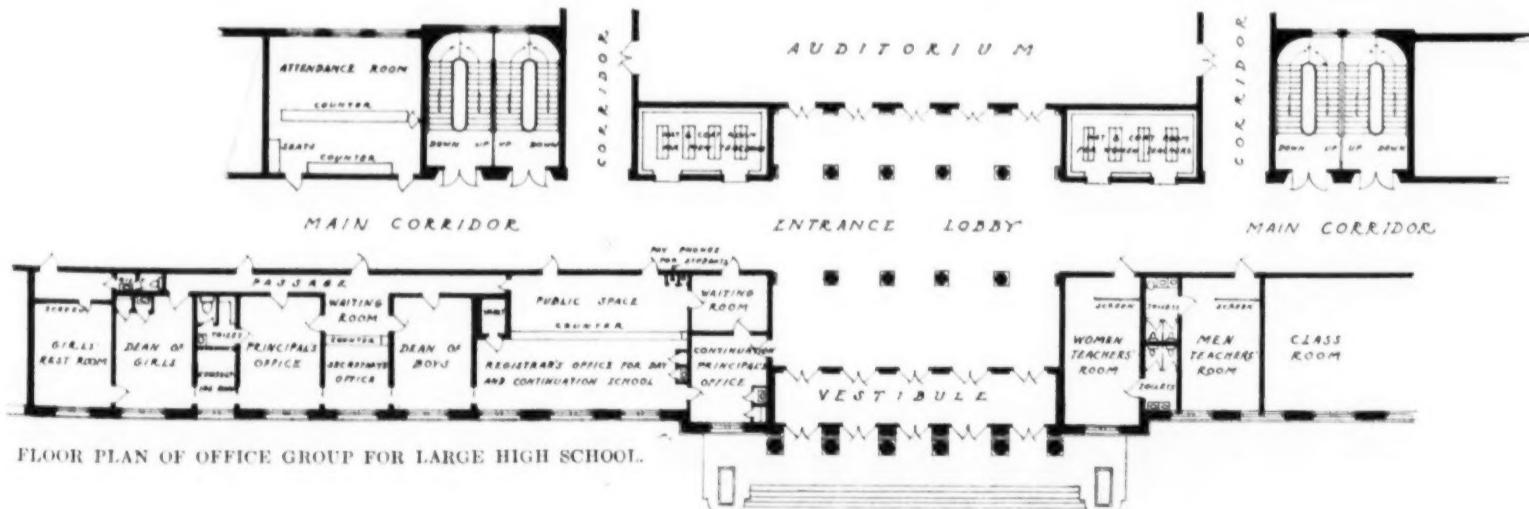
charge of the entire attendance problem. The usual filing devices and office fixtures should be installed.

7. *Office for Heads of Departments.* A study of the plans for large high school buildings does not always indicate the offices that are available for heads of departments and conference committees. The experience of school men has been that there are too few offices in the large high schools. *There ought to be at least one office for each five teachers.* Since the large high school is coming to have continuous sessions, it is important that teachers have quarters where they may retire to plan their work and have conferences with each other, with parents and with pupils. Not only should the heads of departments have good, well equipped offices, but there should be enough other offices for the different groups of teachers.

Experience has shown that the offices should never be placed inside of classrooms, but should have an entrance directly from the corridor.

Administrative Offices in a Large High School.

A study of the plans of many large high school buildings of recent construction shows that there has been little attempt to centralize the administrative quarters. The usual plan indicates a suite of offices located on the first



FLOOR PLAN OF OFFICE GROUP FOR LARGE HIGH SCHOOL.

School Board Journal

floor near the main entrance to the building. The suite consists of three or four adjacent offices, together with numerous closets, vaults, and store rooms. Generally there is an outer office or reception room, an office for a secretary or stenographer, and the principal's office. In many cases there is no direct passage from one office to the other. For economy of time and convenience there should be one.

The writer can surmise two good reasons for the apparent lack of good planning in the administrative offices of large high schools. First, the large new school is the outgrowth of an older and smaller school. The principal and faculty move from the old plant into the new. In planning his quarters the principal thinks of the old accommodations rather than of the needs of the new. Second, it is hard to convince many school boards of the necessity of having a group of complete, contiguous administrative offices. Board members, too, are accustomed to think largely in terms of the small school. Sooner or later the principal finds his administrative problems growing both in number and complexity. He learns that he must have more assistants and that they must have suitable offices. Frequently these offices are located in widely separated parts of the building.

For illustration let us take the Technical High School of Oakland, California. It grew out of the old Manual Training and Commercial High School, which had a normal enrollment of about six hundred pupils. When the faculty and pupils moved into the new plant the enrollment was slightly greater than twelve hundred. Within less than four years the new high school has reached an enrollment of over two thousand. In addition to this, during the past two years a continuation school of more than two thousand adults has developed. Thus within a period of five years the school has grown in daily attendance from an enrollment of about six hundred to over four thousand pupils.

When the Technical High School opened its doors four years ago the administrative offices consisted of a waiting room, a secretary's office, a supply room, a bath room, a toilet and lavatory, and the principal's office. That the offices were inadequate was evidenced by the fact that the two vice principals immediately sought offices outside of the administrative suite. These offices are far removed from the principal's and from each other. Much time is lost in walking back and forth for conferences, interviews, and the transaction of the usual school business.

The development of the continuation school required another suite of offices. These have been taken from space originally planned for the commercial department. They, too, are far removed from the other administrative offices.

Problem Deserves Study.

The need for a centralization of administrative offices in the large high school has convinced the writer that the study of the problem is well worth while. No fixed plan will be suitable for all buildings. Every building presents its own special problems. We should not blame the school architect for all the mistakes that have been made in the plans of our school buildings. The writer knows several buildings in which mistakes have been forced upon the architect against his own best judgment.

After reviewing the plans of many modern high school buildings, we submit the following suggestive one (See Fig. 6):

During the fall term, 1918, the enrollment of the continuation school was as follows: afternoon session (2:15 to 4:40) 965; evening session (7:15 to 9:30) 3,610; total enrollment, 4,575. Of this number many attended only two or three sessions a week, thus giving a daily attendance of about 2,000 for the continuation school. This was exclusive of the regular day school attendance, which was over 2,000.

1. Registrar's office.
2. Office for the principal of the day school.
3. Office for the dean of girls.
4. Office for the dean of boys.
5. Office for the principal of the continuation school.
6. Attendance office.
7. Offices for heads of departments.

1. Registrar's Office. The registrar's office should be on the first floor near the main entrance of the high school building. It should be a large, well lighted, well ventilated office. It should be separated from the public space by a high, wide counter. The rear of the counter should be fitted with cabinets for keeping blanks, office appliances and supplies. On top of the counter, at either end, there should be a plate glass cover under which could be found the programs of the day and of the continuation school, also plans of the building and such other information as is most frequently needed.

At one end of the office there should be a vault for keeping money, permanent school records and other valuables. The office should

be equipped with substantial desks, chairs and filing cases, preferably of quarter-sawed antique oak. Here, also, should be installed the master clock, public telephone and electric buzzers.

In the space reserved for the public outside of the registrar's office there should be two public telephone booths. These should contain local and long distance pay telephones available for pupils and patrons. On the other side of the public space a time recorder should be installed for the use of the day and continuation school teachers and employees. Individual cards should be placed in a cabinet so that at any time, day or evening, the registrar could see at a glance whether teachers have reported in or out.

At the right of the public space is a door opening into a waiting room off the continuation school principal's office. This door is under the control of the secretary of the continuation school. Immediately to the right of the registrar's office is a private entrance to the continuation school principal's office. There is, also, an exit from the continuation school office to the main entrance.

FOOLING THE FLU

Harry G. Clarke, Supervisor Manual Arts,
Modesto, Cal.

In the month of October, after the schools of Modesto, California, had been running six weeks, the Spanish Influenza epidemic became so acute that the authorities closed all places of public gathering. This order affected alike the churches, theaters and schools. Gauze masks were ordered worn, cases of the disease were segregated, and other sanitary measures taken throughout the city. The 75 teachers of the school system, thinking the matter merely a temporary affair, plunged into war work and relief activities. The days passed into weeks and the weeks into months, until, from an educational viewpoint, the matter became distinctly alarming.

At the end of the ninth week of enforced vacation, the ban was lifted, masks put aside, and the old duties resumed. Barely two weeks had elapsed until the epidemic broke out in a more virulent form than ever. Everything was ordered closed again, and the teachers faced the alternative of idling or of figuring out some way whereby the situation might be saved and the school work carried on. They chose the latter and evolved a plan of teaching by correspondence. The scheme in brief was as follows: daily assignments of lessons, from the primary grades thru the high school, were published in both morning and evening papers; pupils worked their lessons at home and either sent by mail or brought in person their written papers; the teachers were in their regular rooms thruout the school day to aid those who came for assistance. The students were kept moving, were not allowed to congregate, and were obliged to wear gauze masks.

As far as the academic studies were concerned, the above plan gave most admirable results; but on its face it was not feasible for work in the manual arts. An entirely different plan had to be worked out for this department, and the following is what was finally decided upon: the shop classes were divided into sections of six, for a ruling of the Health Officer made more than six persons gathered together, a crowd; the week was divided into half-days of four hours each, from 8:00 A. M. to 12:00, and from 12:00 to 4:00 P. M. Each sub-section was assigned to a half-day in its regular order; that is, a group of students belonging to the first period class, and coming at the beginning

of the roll, were assigned to Monday morning, the next division to Monday afternoon, etc. In this manner, each boy enrolled in the Manual Arts Department was allowed to get in four hours of uninterrupted work each week, in the shops. This was about two hours less than was allowed a week of regular school, but the difference was overcome by assignment of outside work, such as papers on the various woods and finishes in the woodworking department, on iron, steel and toolsmithing in the forging department, and on gas engine construction and ignition systems in the auto repair department.

The results of this new method of shopwork have been simply astounding. It has been thought and taught that the boy of high school age is incapable of long sustained application. As a matter of fact and record, the boys of the Modesto High School have proved that in four hours of continuous work they could accomplish more than in a double period each day for a week. Of course, there were cases where a student was not at his best after two or three hours' concentration. Such cases were handled on their individual merits; some given a short recess, some started at the same work from a different angle and some started at entirely different problems. These cases were rare; the average boy worked thru the four hours, seeming to get a better and better grasp of his problem as the time passed.

Grand Rapids, Mich. The board has adopted a budget of \$1,197,241 for 1919 as against \$907,680 last year. The increase is due to teachers' salary increases and to the high cost of supplies.

Atlanta, Ga. The board has appointed a new board of lady visitors. The board consists of one representative woman from each of the ten wards whose duties are to visit the schools and to make suggestions for improvements in the school system.

Supt. F. E. Spaulding, of Cleveland, Ohio, has outlined a five-year educational program suited to local needs and opportunities. The program provides for an increased expenditure of \$3,800,000, or an advance of 54 per cent. Two large items for senior high schools and for Americanization work amounting to \$1,300,000 are based on an extension of present activities to numbers not at present reached. The largest item, \$1,500,000, is provided for teachers' salary increases while \$300,000 is for textbooks and necessary items of instruction. The new program is not intended as a radical departure but as a steady advance toward conservative growth and improvement.

A CONCRETE METHOD FOR REPORTING THE RANK OF PUPILS IN A CLASS

J. E. Evans, Department of Psychology, Ohio State University

With the great number of standardized tests today for testing the efficiency of school work, teaching is rapidly becoming an exact science. While a definite report of school achievement made by every pupil should be made the custom of giving report cards has become almost a tradition, even obsolete in some sections. Like many other traditions the custom has been little more than a mere formality and has lost most of its significance to teacher, pupil, and parent. This should not be so as the report card has a very important place in any school.

Most of the difficulty has arisen because the reader cannot interpret the card in its present form with any degree of success. At present the card is used as if the grades were stated in terms of some absolute measure, but all the while the mind of the reader is attempting to interpret the grades on the card in terms of the pupil's achievement in relation to the other members of his class. To illustrate: suppose that the pupil is graded on the basis of one-hundred per cent, which is true in most schools. While only custom has made it so, this one-hundred per cent represents a perfect score. In terms of this perfect score, then, a certain grade is placed on the card of the pupil according to his ability to answer correctly the questions given on the examinations. Suppose that this grade is 80%. This grade means just one thing, i.e., that the pupil received a grade of 80%, or is twenty points less than the perfect score. We know nothing of the rank or grade of the other members of the class. Every other individual in the class may have a grade above 80%. This makes the rank of the pupil with the 80% grade very low when compared with the other members of his class.

A Different Basis for Rating Students Needed.
This difficulty of comparison may be obviated by using an entirely different basis for grading and ranking the pupils. In preparation for this system of grading the teacher first looks over the list of questions which she has prepared with as much care and intelligence as possible and determines empirically to which question in the list the most importance is to be attached or attributed. This question is given a certain weight or value, let us say ten points for this illustration. Another question seems to be about four-fifths as important so is credited with eight points, another question is about one-half as important as the first question so is considered worth five points, and so on thru the list until every question is given its proper relative weight in terms of the weightiest or most important question. This method is far superior to giving the same value to all questions as the chance for any list of questions to be of unequal value is far greater than the chance for them to be all equal in value.

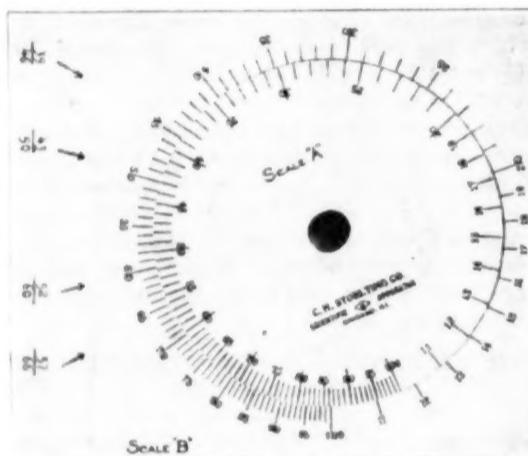
The various values attributed to the questions may or may not be attached to the questions when they are given to the pupils to be answered, but it is always well for the pupil to know the value attached to the questions by the teacher.

After the examination is finished the papers are then graded on this basis of rating. The question which was weighted with ten points, if answered correctly, is credited with ten points and all the other answers are ranked according to their worth in terms of the number of points which was originally given the question. The sum total of the points made by each pupil is indicated on his paper for the further convenience of the teacher. This number, however, does not represent the grade which is ultimately given the pupil on his card.

The Selection of the Class Median.

After all papers are graded they are ranked in order of their number of points from the lowest to the highest. From this group of papers the middle most paper, *the median paper*, is selected. The median is selected rather than the mean or average because it is more representative of real achievement and yet does not differ much in value from the average. It is not influenced by great extremes which so often distort the meaning of the average, and it is as easy, if not easier to find and to understand. In addition to all these points the median is the one measure which has the most meaning when interpolated in terms of 50 which we do in using this system.

When the median paper is selected the paper is interpolated in terms of 50 by means of a slide rule. This means nothing more than establishing a ratio between the number of points on the paper and 50. This automatically determines the value of the points on all the other papers. This is all accomplished by setting the upper or inner scale on the slide rule so that the number of points on the median paper is directly over 50 on the lower scale. All the other interpolations for the other points may now be read from the lower or outer scale.



Type of Slide Rule used by the Author.

This may be stated in terms of a proportion as follows: The median paper : 50 = some other paper : ? Suppose the median paper had 43 points and another paper 39 points. The proportion would then be: 43 : 50 = 39 : 46. Thus the median paper has a ranking of 50 and the other paper a rank of 46.¹

¹The median represents a point in the class which has just as many persons above it as there are persons below it. If n represents the number of pupils in the class then the median is: $\frac{n+1}{2}$. If n is odd then the median will represent a real point in the class and is not difficult to find. But if n is even the median will be an interpolated point. However, the teacher will make no mistake if the nearest real point is used as the median point, or the class always treated as if it contained an odd number of members. The method of finding the median is illustrated in the following table.

No. of pupils	Points made
1	12
1	18
1	22
1	30
1	39
2	40
1	42
1	43
1	46
1	48
2	50
1	52
1	56
1	57

²In this case the median is half way between the eighth and ninth case. As this is not a real point in the class no mistake will be made if either 8 or 9 is used as the median. If 9 is used then the median pupil made 43 points.

By this method no arbitrary limits are set. Some pupils may receive a ranking far beyond 100 as the ranking has no relation to 100%.

The Method of Indicating the Ranking on the Report Card.

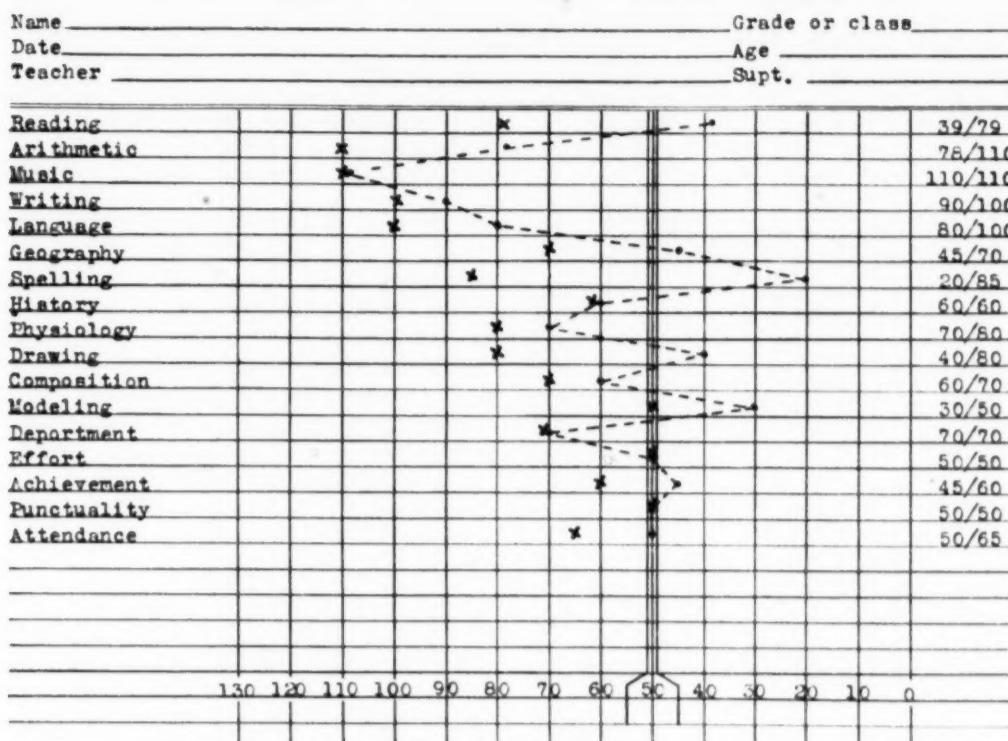
The final grade or ranking to the pupil may be treated in one of two ways or both. It may be stated in terms of a fraction in which the numerator will represent the rank of the pupil while the denominator always remains 50 (*the median for the class*). This means that the pupil ranks so many points (indicated by the numerator) above or below the median or middlemost pupil in the class, or that he is in the upper or lower half of the class. Or, the rank may be stated in terms of perfection. Perfection means the rank which would be obtained if all the questions on the examination were answered correctly. This is obtained by interpolating the sum total of the points which it was possible to make in terms of 50 just as the other interpolations were made. In this case the numerator represents the rank of the pupil in the class and the denominator represents the perfect grade. This form has more meaning in it as the pupil will always know, if he understands the system of marking, that he is ranked in terms of the median which is always 50. This median point will be shown on the report card along with the rank. The fraction in this last case will then mean that the pupil is in a certain position in relation to the median, 50, and also in a certain relation to the perfect grade. Suppose that the ranking given to a certain pupil by this method was 46/79. Translated, this means that he is in the lower half of the class, (46) that he is 4 points below the middle pupil in the class, (50) and 33 points below the perfect score (79).

Since the interpolation is made from the median of the class in terms of 50 there is always a common basis for comparison in every examination. This can never be true of the system in which 100% is used as a basis. In addition to this advantage it eliminates the necessity of setting any arbitrary standard for promotion, a custom unfair to the pupil and a dangerous weapon in the hands of some teachers. The class sets the standard automatically at each examination. If the examination was easy the best pupils in the class will make a greater number of points, but if the examination was difficult the best pupils will make a fewer number of points, yet in both cases there will be the division of the class in terms of the median. To determine who is best in the class at the end of the year it is only necessary to determine which pupil has the highest number of points. The highest rank given by the school should be given to this pupil. If pupils are to be failed on the basis of test work the pupils who fail to come up to a certain point on the scale, say 25, or who have remained in the lower 5% of the class throughout the year should be failed. In the long run the failures, no matter what criterion is used, will be within this 5% limit as this follows fairly accurately the normal curve of distribution.²

The following tables illustrate the above points:

²For further discussion on this point see the bibliography appended to the following articles: Meyer, M. School and society, 2: 1915; 577-578; Meyer, M. Science, 33: 1911, 661; also, Science, 40: 1914; 530-532.

School Board Journal



Explanation: The broken line on the above form represents the achievement of the pupil. The stars represent the highest score possible in the subject. The three parallel black lines marked 50 represent the middle or median point of the class, or the point above which there are just as many pupils as there are below it. The numerator of the fraction at right side of the card is the grade of the pupil in his particular subject while the denominator of the fraction represents the highest grade possible on the examination, or the perfect grade. The points in the curve or graph have all been interpolated in terms of the middle or median (50) of the class.

Weight or value of each question	No. of question	Points or score actually made by pupil
8 points	(1)	4
10 points	(2)	8
7 points	(3)	2
8 points	(4)	4
5 points	(5)	0
2 points	(6)	2
6 points	(7)	3
4 points	(8)	4
10 points	(9)	8
8 points	(10)	4
Total 68		Total 39

The above represents a paper without the questions. The last column of figures represent the points granted to each question by the teacher in terms of the possible points listed in the first column. Sixty-eight points would represent a perfect score.

The following figures represent the grades made by a class in reading. The first column of figures represents the number of cases or pupils making the various grades. The second column represents the points made by the various pupils. These are the figures copied from the individual papers and represent only the points made. (See the previous table for a sample record.) The last column represents the points interpolated in terms of 50. These grades will appear on the report card.

No. cases	Points made	In terms of median
1	12	14
1	18	21
1	22	26
1	30	35
2	39	46
1	40	47
1	42	49
1	43	50
1	46	53
2	48	56
1	50	58
1	52	60
1	56	65
1	57	66
Perfect score = 68		79

All of this data may be indicated on the report card. Let the card not only be a report but a graphic representation of the work of the pupil and his class. At the end of the card, the ordinate, may be indicated the number of points made. A heavy line or a colored line, representing the median or 50 point place may be placed on the card by the printer as this will

always remain the same. Along the abscissa may be indicated the different branches in which the pupil is examined. The grade for the pupil is now indicated on the card by a point in the proper place for each subject. These points are connected and the line represents the graph or achievement of the pupil. With this may also be indicated the maximum number of points for each subject. These points when connected give a graph which represents the perfect score. A picture of such a card based on the data in the previous tables is shown below.

THE DIARY OF A SUPERINTENDENT IN A SMALL TOWN.

(Continued from Page 32)

January 31. Shortly after school began this morning, a little girl handed me a note from Miss Jadwin, grade teacher, to come at once to her room. On entering her room some of the pupils were holding noses, others were holding their sides. My first thought was that the skunk was under the room, as there was no basement under this part of the building. Miss Jadwin was white with anger. As she stood facing me with her back to the pupils she said: "This is the second time this week this has happened and it's got to stop. He hunts all the time he is out of school. It is Luter Hudson, the second boy in the second row of seats, just behind me." He was the only youngster in the room looking in a book. He had a sad face and was badly in need of a haircut. I motioned for him to follow me out of the room and as he approached there was sufficient evidence his teacher was right in getting the odorous one. "Did you get the skunk?" I asked to open the conversation. He looked up for just an instant, too badly scared to see the ludicrous and answered, "got both of 'em."

February 3. Mrs. Kahn, Carl's mother, came to see me today. She wants Carl released from his physics class. She claims Carl has never had trouble with his instructors but he is great-

"Instead of using the perfect or maximum grade the teacher may let this upper line represent the achievement of the best pupil in the class. A lower line might well represent the achievement of the poorest pupil in the class. All grades of the other pupils would then fluctuate between these two extremes. It seems better however to put the emphasis on the highest grade possible or perfection."

ly dissatisfied with this course. Now I tried to talk everything except the facts. That physics course is not satisfactory. Several pupils have made complaints and if Carl is allowed to drop the work several others will ask for the same privilege.

February 4. It was windy today and about 3 o'clock Miss Motler noticed there was a live wire down on the west side of the building and we thought it best to notify the children. The little people dismissed at 3:30 and again at 4 passed without trouble but the boys in the higher grades were too smart. The wire being old and the insulation gone in places was sizzling and sparkling where it touched the ground. The boys would spit on these places, touch them with straws, etc. Charley Johnson tho had to step on one. Well, it was almost the end of Charley. I was notified and when I came out a few moments later Charley was crying as loudly as he could, as well as several little girls who had seen the accident. I telephoned about 8 o'clock this evening and he was reported, "all right, tho still in bed."

February 5. Had a high school teachers' meeting this afternoon. Those lady teachers, bless them, they certainly have high ideals. They are so earnest. They want to do so much. On duty from 8:40 till 4:20, they are tired and no wonder at this hour of the day, they remember the worst things in the day's experience. I listened to their complaints of petty misdemeanors and failed to get excited or discouraged. "Bud McPherson will not pay attention." "Sargent Gage just will not hand in all his written work in English." Otto Biggerstaff and Edith Kerr are failing again this year as usual." "Maybelle Martin and Robert Hartsock have the worst case I have seen this year." "Vernon Robertson was out again today." Yet I do not know one pupil who intends to be bad. Mr. Jason saw what was needed and began to tell of his own high school life. Soon the others grew delightfully reminiscent of student days and we enjoyed the meeting till nearly 6 o'clock.

February 6. A board member asked me today to speak to one of the grade teachers about a little matter. He said she was seen on the streets entirely too much, in fact, it was becoming a joke among certain ones down town. He felt sure the teacher meant well yet the comment should be called to her attention. I had heard a similar remark--just a mere statement not meant for me--at a social some time ago. I told him I would watch my chance and within a few days at most speak to her. I fear when I do there will be friction.

February 7. While down town this afternoon C. A. Darnell called me to one side and wanted to know if I could do anything to prevent school children from crowding him off the sidewalk. He said they came along in "bunches of from three to six, arm in arm, heads together, talking about something and the only thing for an old man to do, was to get off the sidewalk. He said he paid about seventy dollars school taxes annually and he did not like such treatment especially if the bonds for a new building were voted, would cost him hundreds of dollars. Tho the old fellow was somewhat childish there was some truth in what he had to say. I thanked him for calling the matter to my attention and promised to do what I could.

Detroit, Mich. The city council has reduced the school budget from \$16,304,414 to \$9,594,899. In adopting the reduced budget, the city authorities approved the items for teachers' salaries and for library work. It was pointed out that it was not the purpose of the city authorities to hamper the carrying out of necessary building work, and that funds would be provided for any building project which was necessary and for which estimates were not included in the budget.

A Practical Physical and School Record System

John G. Ziegler, Chief Clerk of School Medical Inspection, Pennsylvania State Department of Health

The value of medical inspection in the schools is so generally recognized that it is unnecessary, for the purposes of this article, to advance any argument relative to its merits. The situation in the Commonwealth of Pennsylvania is evidence of the truth of this statement. Under the provisions of the school code, boards of school directors in districts of the fourth class, which comprise districts having a population of less than five thousand, have the power to elect whether they shall have medical inspection in their schools or not. During the school year 1918-19, only 61 out of 2,385 districts decided not to have the pupils inspected.

Half a million school children are thus annually inspected by medical inspectors of the State Department of Health in these districts. This is exclusive of the inspections made in the cities and larger towns where the inspections are conducted under direction of the local school authorities.

One of the most important factors in securing efficient results thru the medical inspection of school children is systematic follow-up work. The notice received thru the teacher from the Department of Health advising treatment for decayed teeth or for defective vision, etc., is frequently overlooked and often entirely forgotten by the parents unless the importance of early attention to such defect is called to their attention by the school nurse or, in the absence of a school nurse, by the teacher.

In order that teachers and school nurses may be enabled to do intelligent follow-up work and to measure the results of their work from year to year, a system of local records becomes a practical necessity. For this purpose the card record seems the most feasible, as it permits of instant transfer of records from grade to grade as promotions or transfers of pupils are made. It is often found, however, that the average school card-record system entails the use of so many different cards or forms that the system becomes too complicated to be a practical success, especially if it is tried in the smaller school districts not having a close system of supervision.

A pupil's physical card record that is practical and workable in the one-room rural schools, as well as in the graded schools and up thru the high school, must be simple and yet comprehensive enough to provide a complete physical history of each individual pupil from his primary school year to the time of graduation from the high school. With the above object in view, the Pennsylvania Department of Health has devised a combined Physical and

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH MEDICAL INSPECTOR'S REPORT																		
Form 51		19		Borough		Township		County										
Name of Building	Grade			I Present														
<input checked="" type="checkbox"/> Teacher	<input type="checkbox"/> Miss			I P. O. Address														
Sec. School Board	P. O.																	
*Teaching in this State	1st yr	2d yr	3 or more yrs	Indicate by v mark	School Term Closes	19	No. Examined											
NAME OF																		
PUPIL	PARENT OR GUARDIAN		AGE	SEX	Color	Height	VISUAL TESTS			HEARING TESTS			TUBERCULOSIS			REMARKS		
	R	L					C	B	D	C	H	T	S	A	G	M	N	S	E	D	(Name, Skin Disease and Deficiencies)
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
R & L Eye	Corneal Defects	Ototorrhoea	Teeth	Tonsils & Cerv. Glands	Breathing	Tuberculosis	Malnutrition	Scalp	Nervous Disease									
Enter test 20, 20, etc.	Slight (1) Total Blindness (0)	Slight (1) Serious (2) Perceives Light (PL)	Unclean (1) Profuse (2) Offensive (3)	Slightly Enlarged (1) Greatly Enlarged (2) Unrelated Gums (3)	Slight Impairment (1) Severe Impairment (2) Acutely Infected (3)	Suspected (1) Active (2) Quiescent (3)	Slight (1) Marked (2) Absent (3)	Nits (1) Lice (2) Mental Defect (3)	Cancrea (1) Epilepsy (2) Mental Defect (3)									

Fig. 3. Blank used by the School Medical Inspector to report the inspections of each school to the State Department of Health. Size $8\frac{1}{2}'' \times 11''$.

School Record card for the purpose of suggesting to local school authorities a workable record showing mental progress as related to physical condition, by combining on one card both physical and school record for each year of a pupil's school life.

The "Physical Record," Fig. 1, side of this card conforms with the Medical Inspector's Report annually made to the State Department of Health (Form 51). Fig. 3. Only one card is required for a pupil's entire school career. The physical record is entered by the inspector or may be copied by the teacher from the Medical inspector's report at the time the inspections are made. The card for each pupil remains with the teacher and a record under "Treatment Advised" indicates whether a notice recommending treatment for any affection has been issued.

The teacher and the school nurse are urged to follow up advices for treatment and to keep under careful observation thruout the school year all pupils for whom treatment has been advised, and in the columns following "Treat-

ment Advised" they will enter a record whenever treatment has been secured and later they will note results, using the code printed at the foot of the card for this purpose.

Each year the findings of the school medical inspector are entered on the line immediately below the preceding year's record. Changes in physical condition for the better or worse are thus immediately apparent to the inspector.

If a pupil contracts a contagious disease, the date and year are entered under "History of Contagious Disease" in the space naming that particular disease. Thus the school and local health authorities have an authentic record of the immunity of children having had such diseases as chicken pox, measles, mumps, etc., and by following the directions of the health authorities their exclusion from school is not required in case the same disease is contracted by another member of the family (Section 10, Act of May 28, 1915). A permanent record of vaccination is also provided for on the card.

On the "School Record," Fig. 2, side of the

Fig. 1. Physical Record. 5"x8" card, buff color, containing code at bottom of card for entering the use of the above record of physical defects. A card of instructions for card, uniform in size with the record card, is also issued.

Fig. 2. School Record, reverse of Physical Record Card. Contains space for annual scholarship record throughout the grades and High School. High School credits may be entered in red.

School Board Journal

card space is provided for entering the grade standing in each study, year after year as the pupil advances thru the grades and high school, as well as space for indicating the grade to which the pupil should be assigned the following school year. This information is especially valuable to the succeeding teacher and of particular importance in the rural schools where teachers are frequently changed.

It is intended that cards shall be kept carefully filed in each schoolroom in a case or pocket provided for this purpose and kept on the teacher's desk. When a pupil is promoted or transferred his card will be sent to the room or school to which he has been promoted or transferred. If the transfer is to another school district, the card may be given to the pupil to present to the teacher or principal in the district to which transferred, or it may be mailed, as deemed most advisable. For schools now using a school record system this card will be very readily adaptable as an auxiliary record.

The value of such a cumulative record of a pupil's physical condition and mental progress must be apparent to every one interested in educational work, because aside from its primary purpose as a basis for efficient medical follow-up work, it will provide the direct means of determining the causes of retardation or backwardness in school work.

The Pennsylvania state department of health requires the teachers in the fourth-class districts to make a return report, Form 51-B, Fig. 4, at the end of the school term giving the results of follow-up work in their school. A blank is provided by the Department containing the names of all pupils for whom treatment has been advised, together with the defects mentioned for treatment. From these reports a tabulation of results obtained thruout the State is made up annually. A printed circular of instructions in reference to follow-up work is issued to each teacher by the department. This circular of instructions also contains a complete table showing the periods of school exclusion for the different contagious diseases.

The use of the "physical and school record" card is optional with the local school authorities in Pennsylvania, but it is rapidly being put into general use by second and third-class school districts thruout the state, and has been adopted by a number of districts of the fourth-class. Its use will, without a doubt, be general because of its practical adaptation to the work and reports annually required by the state department of health, and as the local school authorities begin to more fully realize the value of a closer follow-up of medical inspections in order to secure its full advantages to the community.

The following blanks are used by the department to advise treatment of defects reported. A striking lemon-yellow tinted paper, size 3½ by 6 inches, is used for the blanks and they are enclosed in a similar tinted envelope.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH.

A physical examination conducted by the Department of Health's Medical Inspector of Schools apparently shows that..... has some affection of the..... and as the general health of this pupil may be affected and school progress retarded by this condition, we would respectfully advise you to consult your family doctor relative to treatment.

Very truly yours,
B. FRANKLIN ROYER,
Acting Commissioner.

N. B.—Any inquiry in regard to this pupil's examination should contain the name of the teacher, the school, the township or borough, and the county.

Defective vision may seriously impede the progress of pupils and when associated with eye strain produces marked irritability, prevents close application to study and may affect the gen-

Form 51-B		COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH MEDICAL INSPECTION OF SCHOOLS TEACHER'S RETURN REPORT										Return to the State Department of Health ten days before close of term, or not later than June 30 if term extends into June.			
Teacher _____ School _____		Township / Borough /		County _____											
This report is to be kept with your school records and parents should be urged to secure the necessary medical, dental, ocular, or surgical attention for pupils reported below. Enter "Yes" for kind of treatment given. "CL" for teeth cleaned; unless other dental treatment, "Glasses" for glasses fitted. If no attention whatever, write "None" in first column only. Carefully answer questions below, enter date school closes, also results noticed and return the report as directed in note above. Refer to circular of instructions. Always give name of township or borough and county in which you teach when writing to the Department.												TO BE FILLED IN BY THE TEACHER			
1. Number of pupils questioned on the following points. 2. Number of above pupils using tooth brush daily. 3. Number of above pupils who own their individual tooth brush. 4. Number of above pupils who have never been to a dentist. 5. Number of above pupils sleeping with bedroom windows closed. 6. Number of above pupils using coffee daily. 7. Number of above pupils using tea daily.												Grade or grades. _____ | School term ends. _____ / 19____			
												8. Have pupils been given physical exercises or drills? Minutes per day? _____ Per week? _____			
												9. Have pupils been given deep breathing exercises? 10. Are windows always thrown open during above exercises or drills? 11. Are hot lunches served to pupils in the building? 12. Are community or social meetings of parents and teachers held monthly in school building?			
Pupils Treated Advised		Affection		Treatment		Results		Remarks Received Important "Yes" responses "Unimportant"							
1	2	3	4	5	6	7	8	9	10						
11	12	13	14	15	16	17	18	19	20						
21	22	23	24	25	26	27	28	29	30						
31	32	33	34	35	36	37	38	39	40						
41	42	43	44	45	46	47	48	49	50						
51	52	53	54	55	56	57	58	59	60						
61	62	63	64	65	66	67	68	69	70						
71	72	73	74	75	76	77	78	79	80						
81	82	83	84	85	86	87	88	89	90						
91	92	93	94	95	96	97	98	99	100						
Separate page for notes and signatures	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____				

Fig. 4. Blank used by the Department of Health to report the names of defective pupils to the teacher. This report is returned by the teachers at the end of the school term showing treatment and results obtained. Size 8½" x 11".

eral health of the pupil. Defective eyesight should be corrected without delay. *The trouble is never outgrown* but in most instances yields readily to treatment.

Nose and throat affections are commonly caused by adenoids and enlarged tonsils. These conditions are both overgrowths of spongy tissue, the former at the back of the nose, the latter at each side of the throat and often require removal. Neglect to correct nasal obstruction is liable to result in nasal catarrh or impairment of hearing, while the neglect of large tonsils often results in recurring attacks of sore throat or serious systemic infection. In cases of great enlargement of adenoids and tonsils the natural contour of the face, particularly about the mouth and nose, is changed to a marked degree, so that in addition to impaired health, the facial expression may be greatly altered.

The temporary or milk teeth should always be kept clean in order to preserve them from decay. Neglect of these temporary teeth, particularly if they are lost from decay, is almost sure to result in early decay of the permanent teeth. *Decayed teeth are frequent sources of serious infectious diseases*, are often direct sources of indigestion, while the premature loss of teeth often prevents proper development of the jaws, induces habitual mouth breathing, which is a fruitful cause of nose and throat troubles, and interferes with the proper formation of nature's lines about the mouth. Permanent teeth, when properly cared for, should last thruout life. Children should be taught to cleanse their teeth after each meal.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH.

A physical examination conducted by the Department of Health's Medical Inspector of Schools shows that..... needs to have the teeth carefully cleansed each day. We would advise you for the good of this pupil to use every care to keep the teeth clean in order to preserve them from decay.

Very truly yours,
B. FRANKLIN ROYER,
Acting Commissioner.

N. B.—Any inquiry in regard to this pupil's examination should contain the name of the teacher, the school, the township or borough, and the county.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH.

A physical examination conducted by the Department of Health's Medical Inspector of Schools shows that..... has some affection of the teeth, causing them to decay. We would advise you for the good of this pupil to have the teeth carefully cleansed at least

twice each day and to consult your family dentist relative to treatment.

Very truly yours,
B. FRANKLIN ROYER,
Acting Commissioner.

N. B.—Any inquiry in regard to this pupil's examination should contain the name of the teacher, the school, the township or borough, and the county.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HEALTH.

A physical examination conducted by the Department of Health's Medical Inspector of Schools apparently shows that..... has some affection of the..... that needs medical attention. We would, therefore, advise you for the good of this pupil to consult your family doctor at once concerning proper treatment. If unable to employ a doctor, we will be glad to have the child examined in the Department of Health's Free Tuberculosis Dispensary located at..... open..... from to Very truly yours,

B. FRANKLIN ROYER,
Acting Commissioner.

N. B.—Any inquiry in regard to this pupil's examination should contain the name of the teacher, the school, the township or borough, and the county.

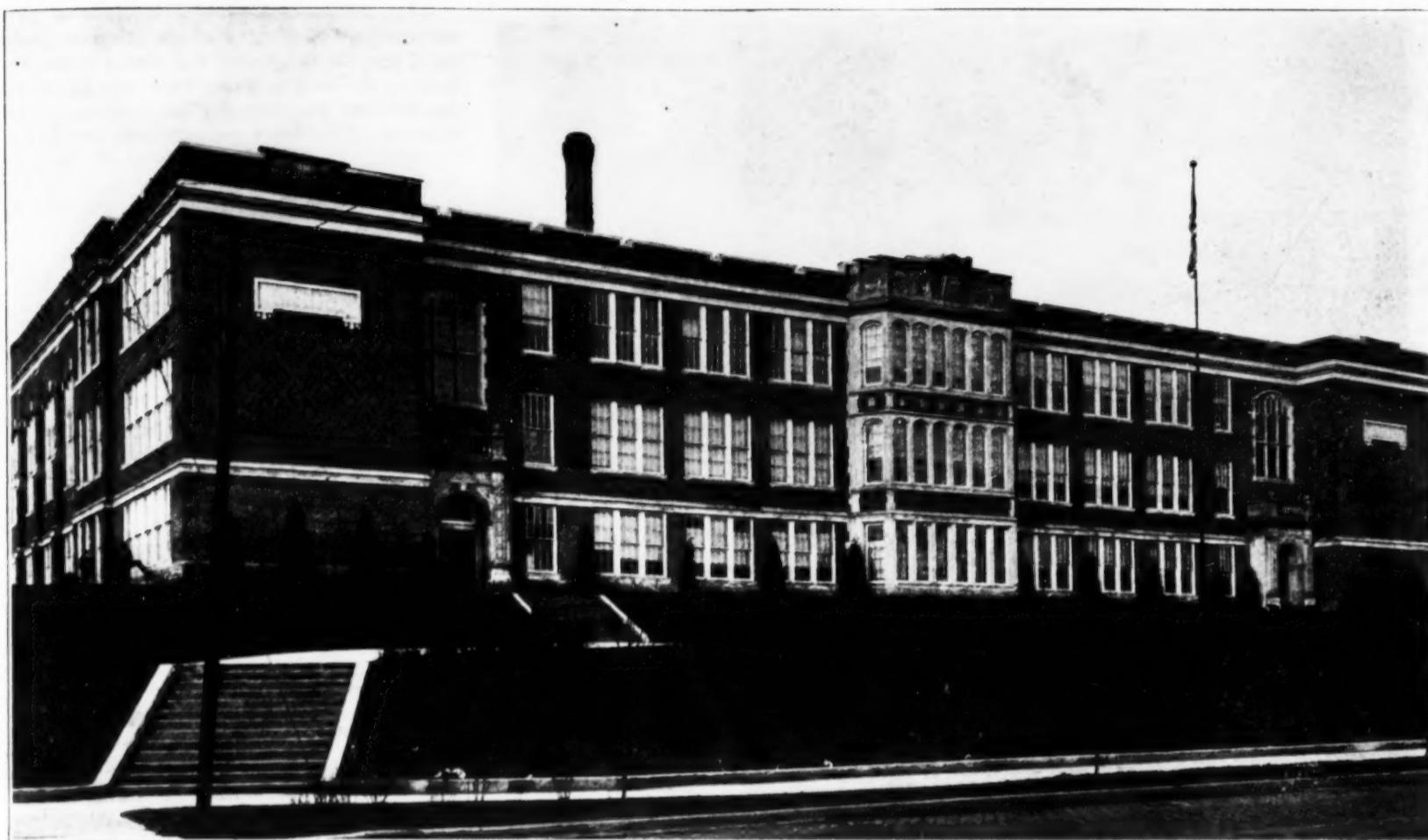
Tuberculosis is infectious. It is usually contracted by the introduction of tubercle bacilli coming directly or indirectly from one suffering with tuberculosis. The germ causing this disease is usually found in the sputum of sufferers.

Tuberculosis is preventable. To avoid contracting the disease cleanliness is absolutely essential, this includes avoiding contact with the bacilli as found in dirty homes, in the dirt of the streets or public places. Tubercle bacilli are to be found on the persons of those suffering from the disease, on the eating utensils, on the furniture and bedding used by them, and on the walls of dirty homes occupied by those having consumption.

Prevent the disease by maintaining a high resistance to infection, avoid excesses of all kinds, avoid the abuse of alcohol, as it will interfere with functions and processes of digestion and harden the walls of the blood vessels; conserve the body's strength; and be careful in the selection of suitable food.

Another important factor in maintaining a high resistance is *living in the open air* as much as time will permit, both *night and day*.

Tuberculosis is curable in most instances. When the proper medical advice is secured and obeyed in the early stages of the disease a cure usually follows.



EAST INTERMEDIATE SCHOOL, JACKSON, MICH. Claire Allen, Architect, Jackson.

The Intermediate Schools of Jackson, Michigan

E. O. Marsh, Superintendent of Schools

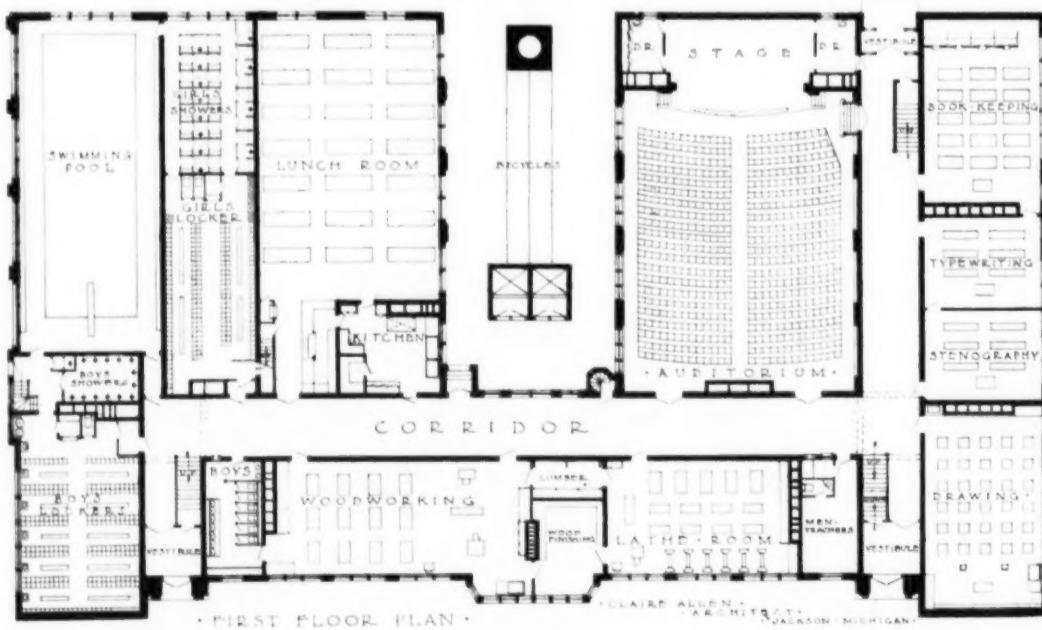
Articles descriptive of new school buildings written for the *SCHOOL BOARD JOURNAL* are usually prepared chiefly from the standpoint of the architect. The following account, however, of new schools at Jackson, Michigan, is written partially from the standpoint also of those who have to use the buildings. It tells something of an endeavor to embody in a building program and in the buildings themselves certain preconceived theories of education and certain preconceived conceptions of the functions which the buildings were to perform.

The so-called junior high school movement has become very popular of late, with the result that at the present time at least five hundred schools are listed under that name. Investigation shows, however, that most of these schools are junior high schools in name only. This is due in large measure to the fact that school authorities too often sacrifice well-conceived educational plans and ideals to the immediate exigencies of the situation or to the desire to make an immediate showing. For example, perhaps a new high school building is erected; immediately it occurs to someone that the abandoned building can be made to serve for a junior high school, and this, too, in spite of the fact that it is as little suitable for a real junior high school as it was for a modern senior high school. But if it is once assigned to such use, the resultant situation is apt to be continued indefinitely, if it does not in the meantime fatally affect the whole junior high school idea in that community. Or perhaps the necessity of accommodating the growing school population suggests the bringing together in some other way of the children of certain grades, possibly in an unused or only partially used elementary school, possibly in a portion of the high school building; the work is then depar-

tmentalized and word goes forth that another junior-high school is born. No doubt, if the school authorities of that community are convinced beyond question that such arrangements are the best they can hope to get for many years to come, they are justified in making them, on the principle that a half loaf is better than no bread at all; but unless the school plant makes it possible to realize most of the fundamental features of a junior high school, it should not be dignified by the name. Its very presence under that title is apt to delay indefinitely the coming of the real institution.

Of course the chief disadvantage of establishing such a makeshift junior-high school is

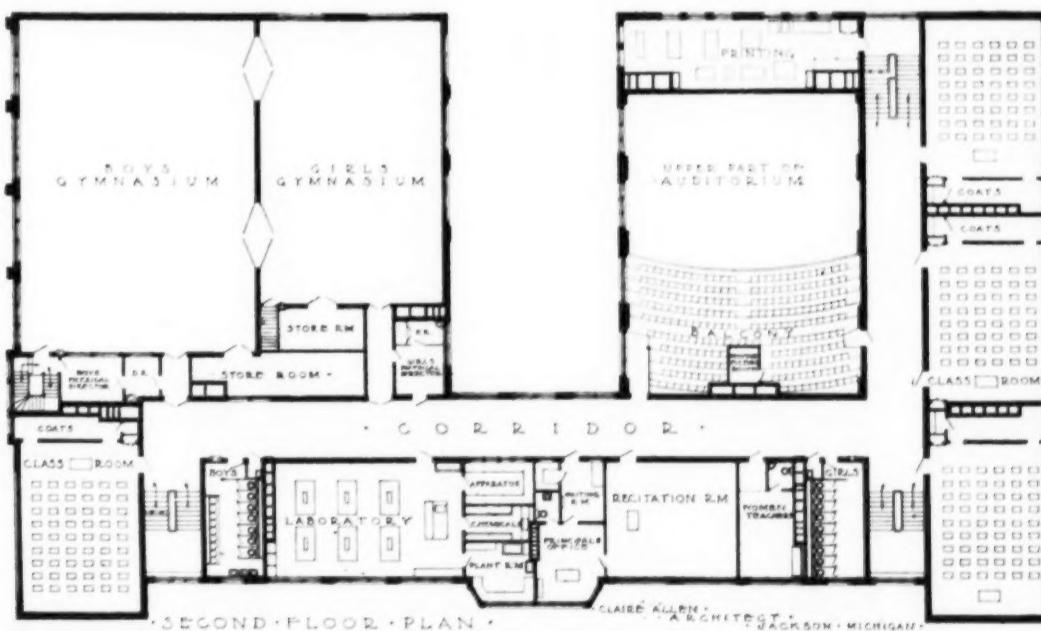
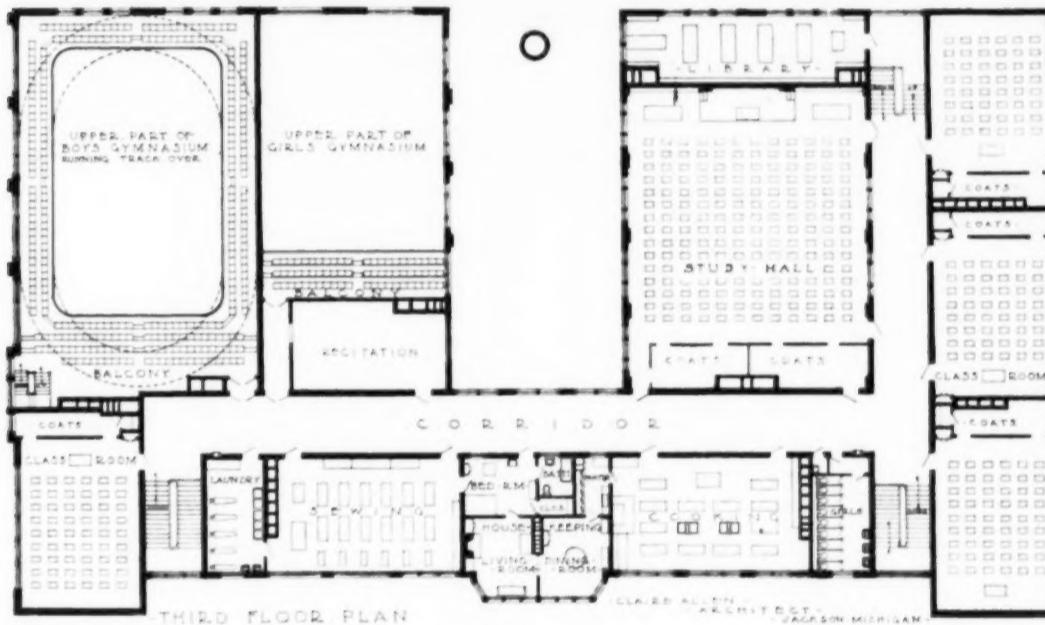
found in the limitations placed upon the school by the plant itself, the necessity of adjusting the course of study and the school's activities of all kinds to the physical environment. Unfortunately this is often more or less the situation even when a new building is erected, whatever its type or purpose. The architect plans the building, perhaps utilizing, with as few changes as possible, drawings and specifications he has used before, his plans are accepted by the board, the building is erected, and those who have to work in it must adapt their program of studies, their plans of organization, and the activities of their school, to the building as it is handed over to them.



FIRST FLOOR PLAN, EAST INTERMEDIATE SCHOOL, JACKSON, MICH.



DRAWING ROOM, EAST INTERMEDIATE SCHOOL, JACKSON, MICH.
Claire Allen, Architect.



FLOOR PLANS, EAST INTERMEDIATE SCHOOL, JACKSON, MICH.

When the Jackson school authorities adopted the six-three-three plan of organization some years ago, the temptation was strong to build a large comprehensive senior high school and use the existing structure for junior high school purposes. This was a comparatively new building, but over-crowded, essentially of the academic type, and without adequate facilities for instruction in the industrial and vocational subjects. It was decided, however, to begin at the bottom and work up, assuring in turn to each of the three divisions of the re-organized schools ample and satisfactory facilities for carrying on its own particular work. It was found that the elementary schools then existing, if the seventh and eighth grades were removed from them, would be fairly suitable for the first six grades, with their uniform education under the single teacher plan. The next step then was to prepare to take the children at the end of the sixth grade and give them the kind of education they ought to have for the following three years; and finally by the time the first of these children should have passed thru the new intermediate schools, to have ready for them, if possible, suitable facilities for carrying on their education from that point. The second step in this program has now been taken, and the two buildings illustrated in connection with this article accommodate the entire present enrollment in the seventh, eighth, and ninth grades.

Furthermore, the school authorities have been able, within definite financial limitations, to have the architects build the new schools around courses of study and plans of organization worked out tentatively in advance. Erected as they were entirely in war times and at war prices, it was not found possible to embody in them all features originally contemplated; and no doubt it will be found as time goes on and junior-high-school practice passes out of the experimental stage and becomes established, that mistakes have been made. But so far as they go, the buildings will at least make it possible to realize certain conceptions which were entertained by the local school authorities at the time the plans were originally formulated.

It will be noted, for one thing, that the schools are called "intermediate" rather than "junior high" schools. This is not alone or chiefly because the term is more logical and otherwise more satisfactory, but primarily because it is believed that schools of this type should not be thought of as high schools at all. The term "junior-high-school" suggests either that this school is to be in some way subordinate to the senior-high school, which is to control or dominate it, or else that it is a sort of embryonic high school, partaking of all the characteristics of its senior relative. But just as the high school should not employ college methods or college subject matter and should at the same time be free from college control of methods and subject matter; just as the high school stands on its own bottom, offering a certain kind and amount of education suited to the needs of young people who have had certain previous school training, and does this by methods suited to their particular stage of development; so the intermediate school has its own distinct field, as different from the high school field as the latter is different from the college. It would be quite as appropriate to call schools of this type senior elementary schools as junior high schools. Better than either is to call them intermediate schools, and then to make them what their name suggests, intermediate in all respects between the elementary school below and the high school above, intermediate in organization, in methods of discipline and control, in subject matter of instruction, in methods of teaching.

So, for the psychological effect, in order that the name itself might be continually conveying and suggesting to everyone connected with these schools the fundamental idea underlying them, the words "Intermediate School," engraved in stone, were placed prominently on the fronts of these new buildings.

The cuts accompanying this article are to be considered with this fundamental idea prominently in mind. In external architectural features, layout of rooms, amount of space devoted to different departments, cost—in these and other respects the buildings were planned to be intermediate between elementary and high schools, distinct from either but partaking of the nature of both and forming a connecting link between them. For instance, laboratories, shops, and other special rooms were provided, tho not so extensively or equipped the same as in a high school; at the same time, because it was believed that the intermediate school ought to make easy the transition from the lower to the higher school, the buildings were planned to contain a number of classrooms of the ordinary elementary school type, with cloak rooms adjoining, with the usual desks, etc., in order that the pupils might at first have the close supervision to which they had been accustomed under the one teacher plan of the elementary school, and in order that they might become adjusted gradually to the specialized departmental organization. Seventh and eighth grade session room or home room teachers are provided, each of whom is expected to keep the same group of pupils in her room for two years, instruct them during this time in studies which are common to every curriculum and required of all her pupils, and act as their counselor and adviser in the selection of their "elective" studies. The pupils thus pass gradually from the one teacher plan of the sixth grade to the completely departmentalized plan of the ninth grade while still in the intermediate school, and the teacher thus becomes a semi-specialist while retaining the broader outlook and the more intimate relation with her pupils of the all-round teacher, so necessary if she is to serve well as guide and counselor. Just how far this device can be carried in practice depends somewhat, of



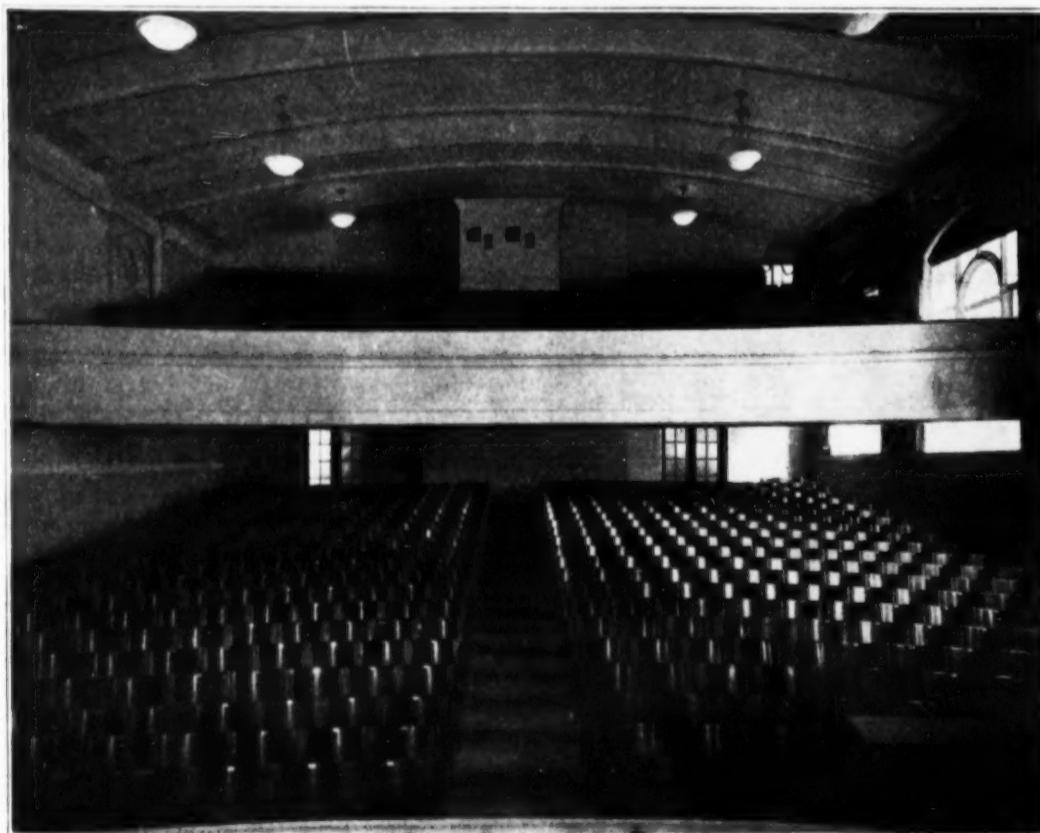
EAST ENTRANCE, EAST INTERMEDIATE SCHOOL, JACKSON, MICH.

course, upon the exigencies of the recitation program.

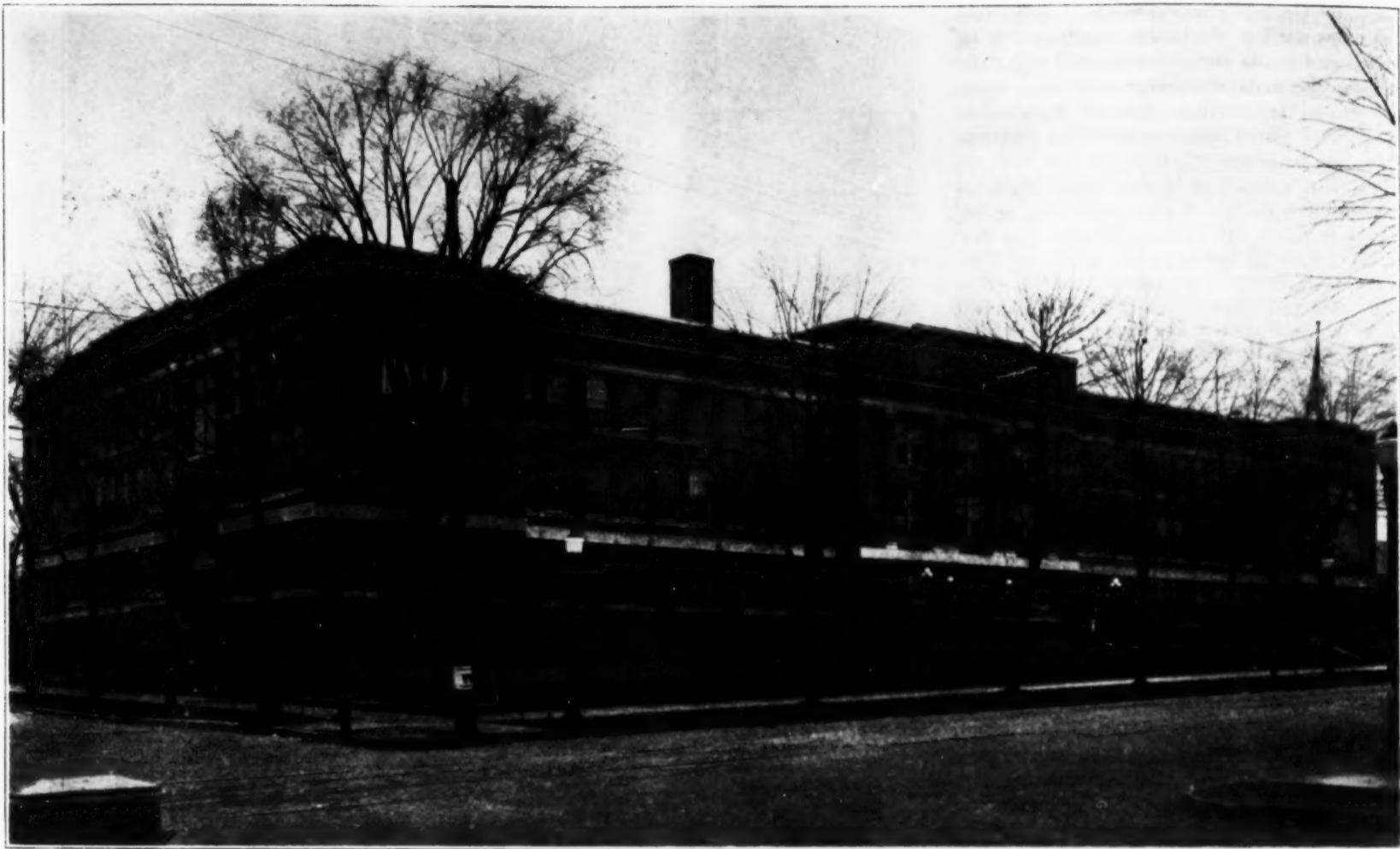
While it is not within the scope of this article

to discuss the general functions of the intermediate school and the ideas which underlie it, an interpretation of the accompanying floor plans from the functional point of view will perhaps justify one or two further observations along this line.

The intermediate school as an institution ought to be made so interesting and attractive as to hold in school a large part of that fifty or sixty per cent of children who are ordinarily being lost in the upper grades of the elementary school and the first year of the high school, while at the same time, of course, making the subject matter of instruction such as will be most profitable for them as well as for the remainder of the pupils. It was, in fact, a consideration of this appalling mortality that impressed upon the local school authorities in the first place the vital importance of developing, if possible, a type of school for these grades that would tend to remedy this condition. Investigation showed that it is not in most cases because of economic necessity on the part of the pupils, or of their parents, that this vast army of young people is annually leaving our schools. It is partly due to the restlessness that naturally accompanies the onset of adolescence; partly to the monotony of the uniform course of study, to which the children can be held by force, with the assistance of the truant officer and a compulsory attendance law, till they reach about the end of the sixth grade, that is, till they reach the adolescent age, but from which many of them will break away at the first opportunity, particularly if they have become retarded, as most children have before they reach



AUDITORIUM, EAST INTERMEDIATE SCHOOL, JACKSON, MICH.
Claire Allen, Architect.



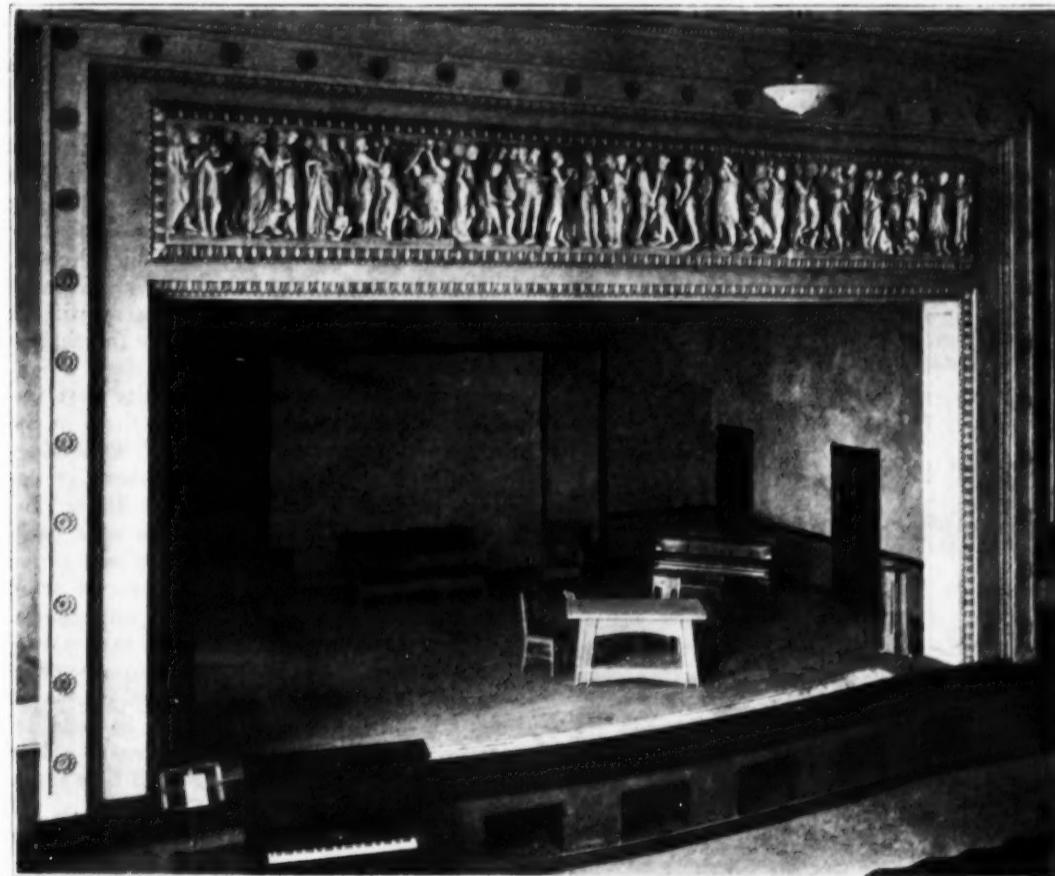
WEST INTERMEDIATE SCHOOL, JACKSON, MICH. Leonard H. Field, Jr., Architect, Jackson.

the seventh grade; partly to a feeling on the part of pupils and parents that the education the schools have been offering in these higher grades is not just what the children ought to have. So when shower baths and swimming pools and separate gymnasiums for boys and girls were included in these intermediate schools, this was not alone for purposes of physical education, important as that undoubtedly is, but

largely for the purpose of holding the interest of adolescent boys and girls and helping to keep them in school until the time should arrive when the various mental vagaries that accompany the adolescent period should be somewhat dissipated and they could see the importance of continuing their education. The same with the auditoriums, the motion picture equipment, the lunch rooms, the facilities provided for various

student extra-classroom activities and organizations, all of which, to be sure, serve valuable educational purposes or assist in the school economy, but all of which are thought of also as appealing to and interesting the children, and thus tending to hold more of them in school. The so-called practical departments of instruction—the industrial arts with their shops and drawing rooms, the household arts with their sewing and cooking rooms and housekeeping suites, the sciences with their laboratories and conservatories, the commercial and agricultural departments, and the rest—not only are they highly important from the standpoint of the education which they offer, but they help to hold in school a large class of young people to whom the old-line studies in these grades have made but little appeal. It is interesting to note that these influences are already producing the desired results, tho the new buildings have only been completely occupied since the middle of February. The increase in enrollment in the two years prior to the opening of these schools was 25 per cent larger in the upper grammar grades than in the primary grades, plainly showing a tendency on the part of the older children to remain in school and participate in the advantages to be offered by the new buildings; while since the new schools were opened, many who believed they had permanently withdrawn from school have returned, especially in the ninth grade.

The new buildings are calculated to serve the public in other ways than the mere education of its children. They were planned with a view to carrying out the conception of education which considers the school system as having to do with the entire community, in school and out of school, adults as well as children, the community at study, at work, and at play. This idea of education has resulted in the extension of the school system to cover evening classes, special classes for foreigners, mothers' clubs, community center activities of all kinds, edu-



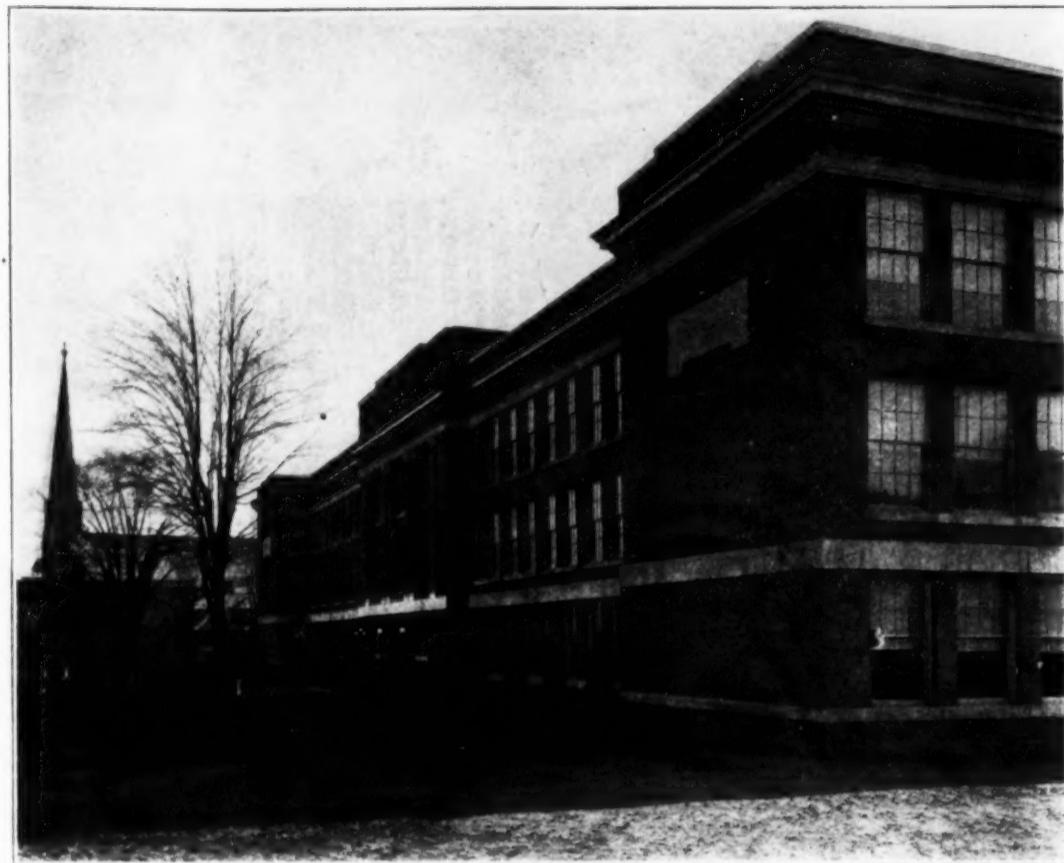
STAGE OF THE WEST INTERMEDIATE SCHOOL, JACKSON, MICH. Leonard H. Field, Jr., Architect.

tional, social, musical, and recreational, and a host of similar movements, for all of which these new buildings were distinctly planned and are admirably equipped and located.

From the Standpoint of the Architect.

One of the foremost considerations affecting the planning of a large school building in its adaptation for community uses is the placing of the auditorium on the ground floor so that it may be easily accessible to the public. In the West Intermediate school this consideration resulted in the sacrifice of that complete symmetry and balance which makes the most handsome looking floor plan on paper. This balance is usually secured either by placing the gymnasium and auditorium at the two ends of the building or by placing them in the center one above the other and using this group as the central axis of the whole structure. In the West school the auditorium is placed on the ground floor on one side of a large light court and the boys' and girls' gymnasiums on the other side, without special regard to symmetry of floor plans. The two gymnasiums are placed on the second floor side by side, and can be thrown together on social occasions. The boys' gymnasium extends up thru the third floor to the roof, thus giving space enough for a visitors' balcony, with running track above, and admitting the use of a very large skylight, which makes the gymnasium joyous with sunshine. In the East school the arrangement is similar, but no skylight is required.

Not only should the gymnasium and pool rooms be flooded with sunshine, but every part of a modern school building should be abundantly lighted. Classrooms, of course, are always well lighted, if the amount of glass area is provided which is designated by law in the states which have school building codes, but the entrances and corridors and locker rooms should also be so well lighted that the whole building may express joy instead of drudgery. This has



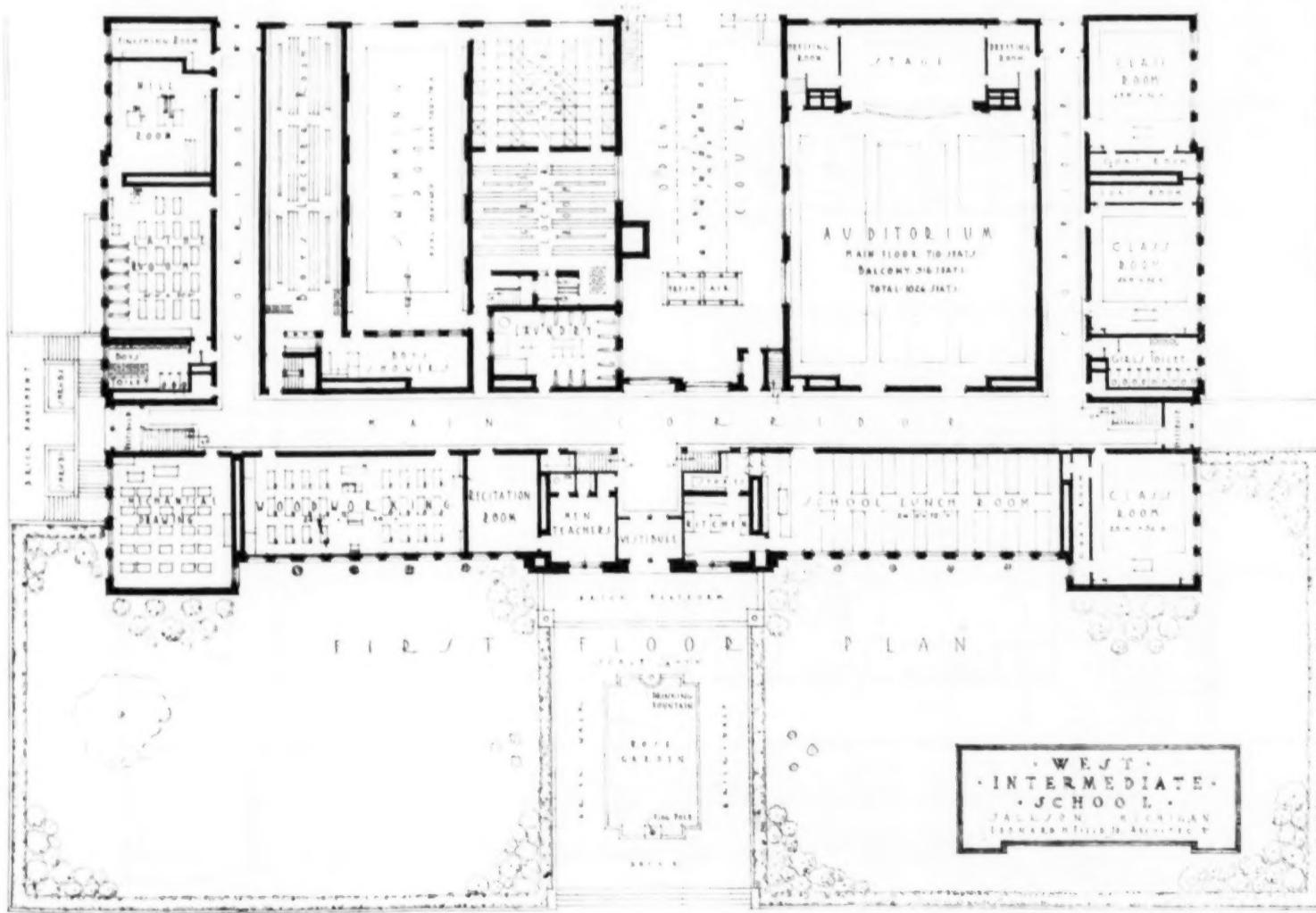
VIEW FROM WEST ACROSS FRONT OF WEST INTERMEDIATE SCHOOL, JACKSON, MICH.
Leonard H. Field, Jr., Architect.

been successfully accomplished. In the West school very large openings have been used in such places, and steel sash employed where necessary.

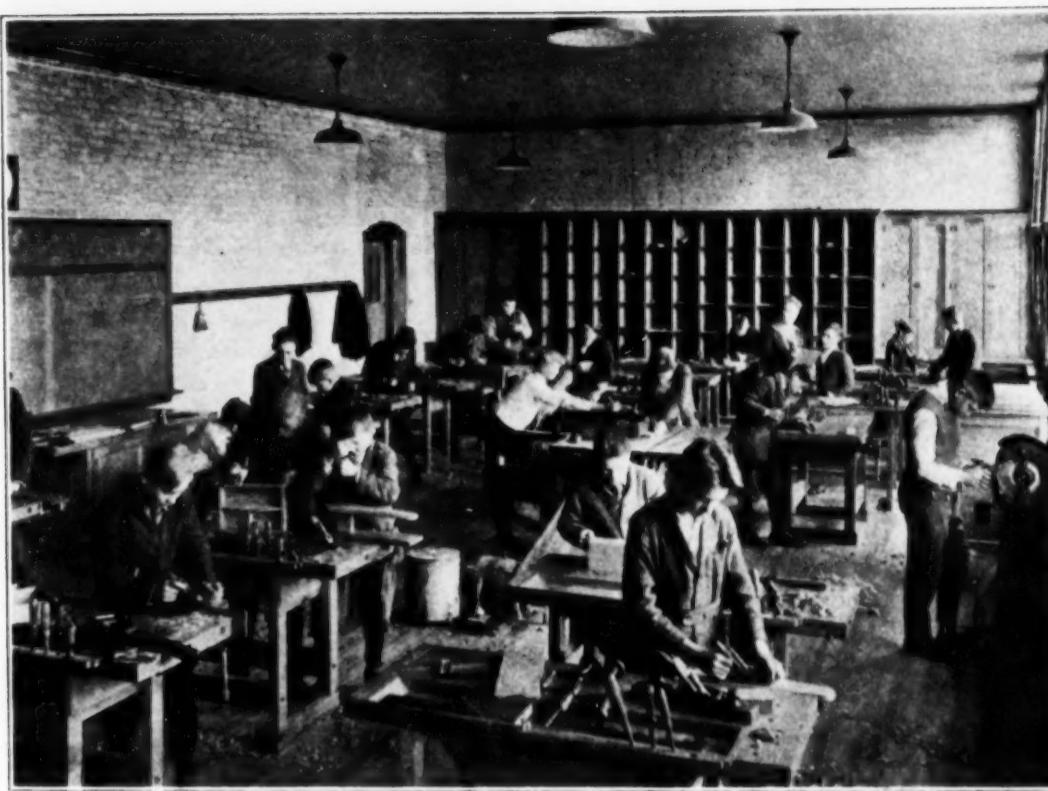
building above grade, thus making the entire basement available for school purposes. In these intermediate schools the ground floor is placed six inches above grade and carefully in-

In a small school it is possible to use all basement space for boiler and fuel rooms, toilet rooms, and playrooms. In a large building, where an entire floor cannot advantageously be used in this way, it is better to raise the whole

building above grade, thus making the entire basement available for school purposes. In these intermediate schools the ground floor is placed six inches above grade and carefully insulated against moisture so as to make it available even for classrooms. The boiler and engine rooms and the coal bunkers are placed below the ground floor level, under the light court. Beneath the corridors runs a heating



FIRST FLOOR PLAN, WEST INTERMEDIATE SCHOOL, JACKSON, MICH.



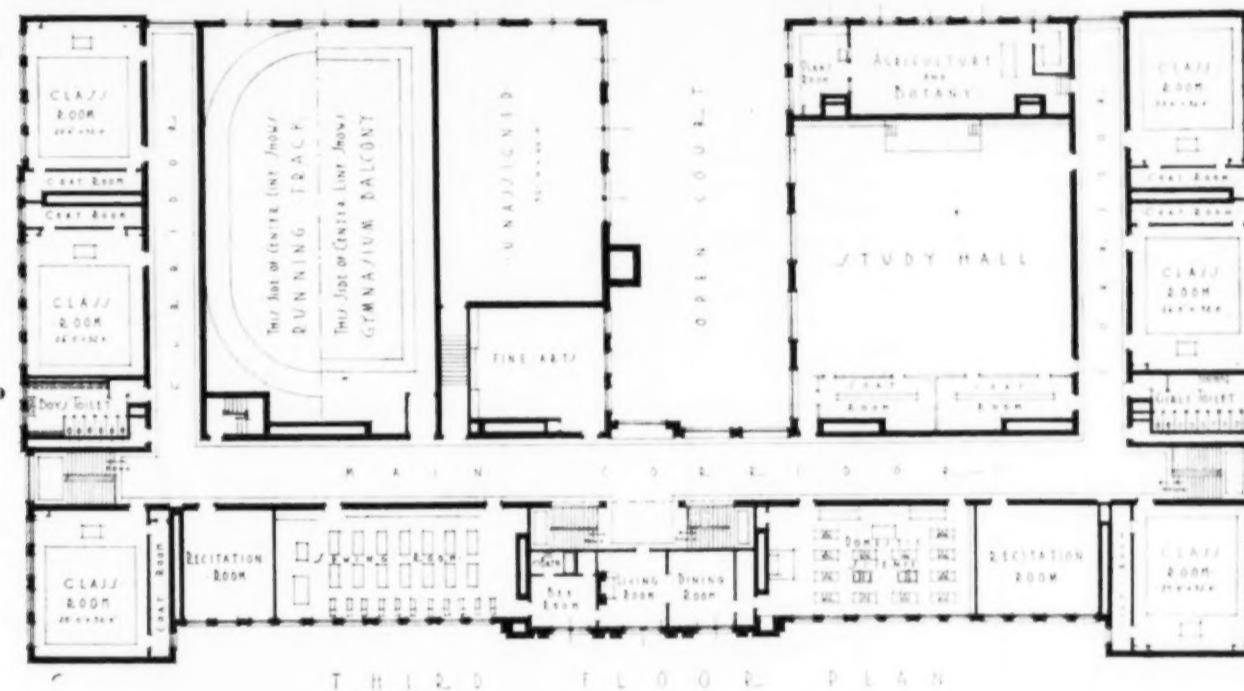
MANUAL TRAINING SHOP, WEST INTERMEDIATE SCHOOL.

and ventilating tunnel, which also contains all of the electric conduits, and the steam, water, and gas pipes. The ground floor is thus entirely freed from ducts and pipes and becomes the most interesting and attractive floor in the buildings.

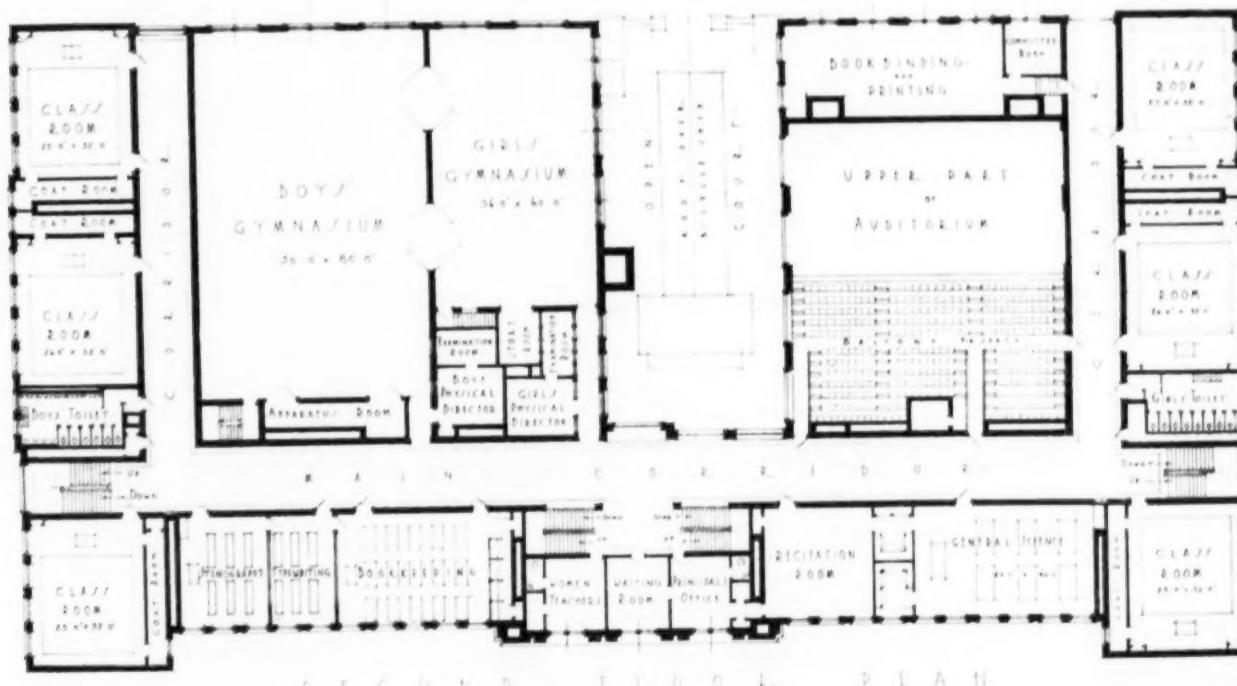
Both buildings are of brick, trimmed with Bedford stone, and are entirely of first class fireproof construction. They are equipped with automatic telephones, program clocks and electric signals, vacuum cleaning facilities, thermostatic heat regulation, and the other devices of up-to-date schools. They were built with a view to future extension, all corridors, service pipes, conduits, ducts, etc., being carried to the points where the additions will be attached, and all heating, ventilating, and lighting equipment being made large enough for the extra load. Only the central features and a few class-rooms have been completed at the present time, owing to war-time cost of construction; but by the addition in the future of class and recitation rooms alone, the capacity of the buildings can be greatly increased at comparatively small expense.

The contracts for construction were let for the most part before the United States entered the war, but subsequent to a very decided increase above normal in the cost of labor and

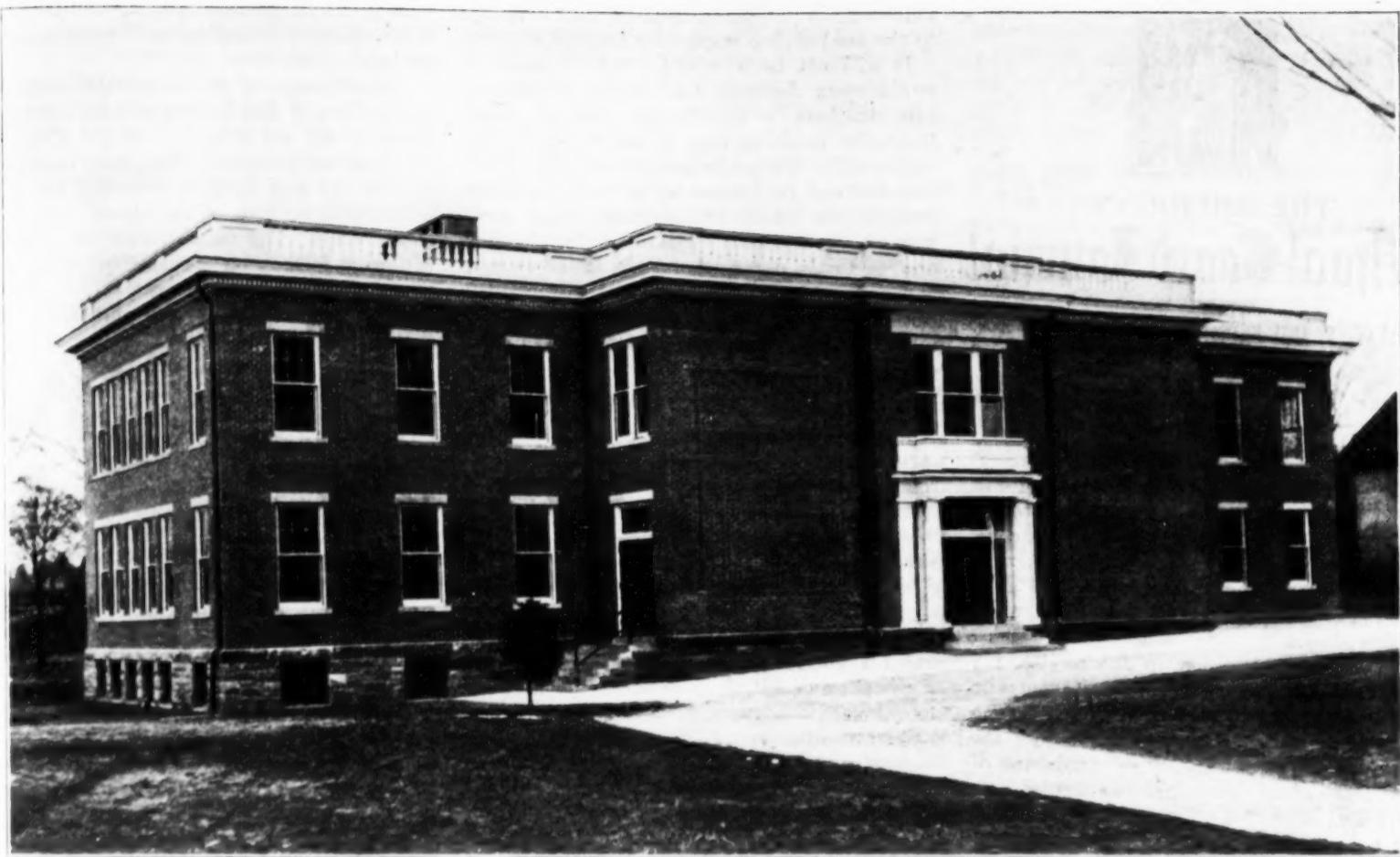
(Concluded on Page 79)



THIRD FLOOR PLAN



WEST INTERMEDIATE SCHOOL, JACKSON, MICH. Leonard H. Field, Jr., Architect.



JORDAN SCHOOL, WATERFORD, CONN. Louis R. Goddard, Architect, Waterford.

**THE JORDAN SCHOOL, WATERFORD,
CONN.**

Charles F. Dingman, A. M., Society of Construction Engineers.

The Jordan School recently completed at Waterford, Conn., is an interesting building by reason of the foresight displayed in building for future needs and also because of the nature of the contract under which the work was done in a much shorter time and with a small expenditure for overtime wages of laborers. The contract for the building was awarded to the Flynt Building Organization of Palmer, Mass., at actual cost, plus a fixed fee. The firm was represented on the ground by Mr. L. H. Bogue, who acted as general superintendent and the general supervision of the work was under Mr. Louis R. Goddard, the architect. The building was completed within the original time agreed upon and only one-half hour of overtime wages was paid.

The structure replaces an old brick building which was destroyed by fire early in 1918 and the old bricks were used in the construction of the new building. Even tho the town is sparsely settled, the old building was deemed too small for present and future needs and it was therefore determined to increase the size of the rooms and to add three more classrooms. The new

structure provides for nine large classrooms with an assembly hall on the second floor. A folding partition makes it possible to use the room for class purposes whenever necessary.

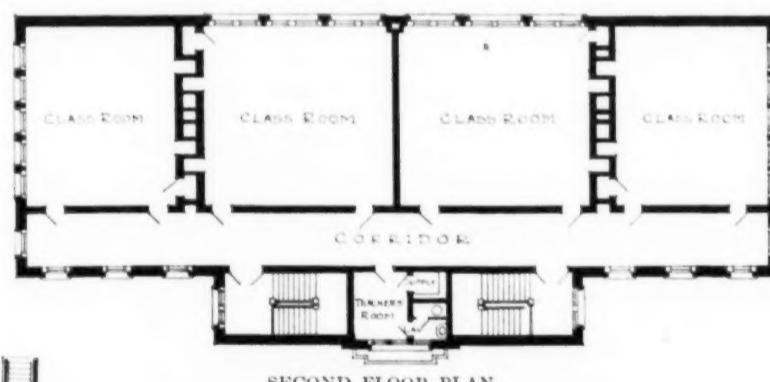
The exterior of the building is of Barrington "Harvard" brick. The basement walls are of granite ashlar, combined with stone from the old building and Monson granite. The trimmings are of Monson granite with cornices and parapet of white pine.

The interior of the building is of brick, with wooden floor beams, brick cross walls and gypsum-block partitions. The construction is semi-fireproof and is intended to give sufficient fire protection without the expense of strictly fire-

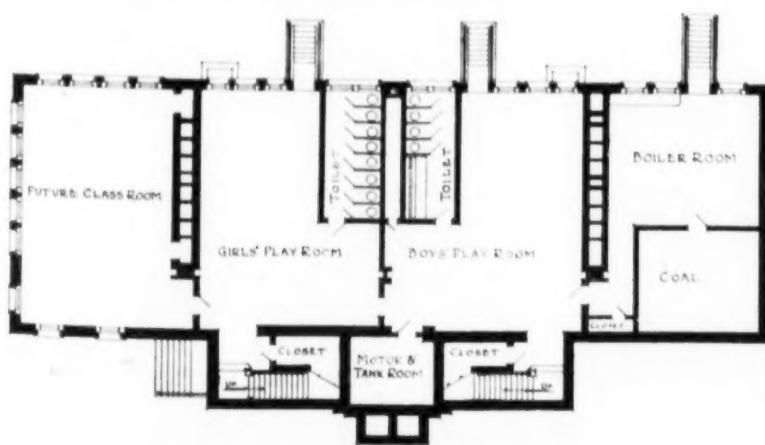
proof features. The classroom and corridor floors are double, consisting of a rough layer of yellow pine, a second layer of deadening felt, and a finished top of tongued and grooved maple. The stairs are of iron, with non-slipping concrete treads. The finish for the classrooms is of oak, with plastered walls of light, bluish-green. Slate blackboards are installed in all classrooms.

As the town has no water supply or sewerage system and the old school had outside toilets, it was decided to install an entire new system. A brick cesspool was built one hundred feet from the building and all the sewerage from the plumbing fixtures is taken care of by this means.

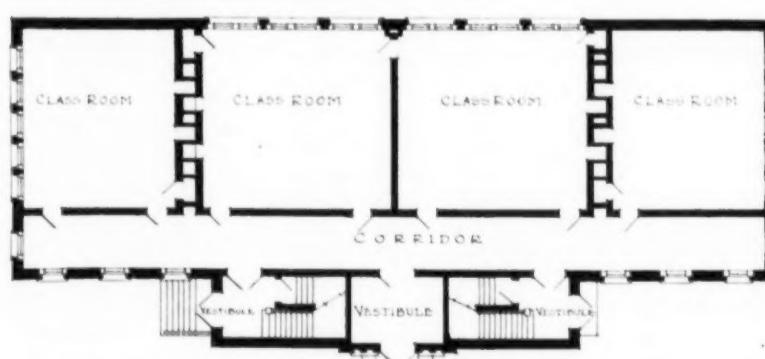
(Concluded on Page 80)



SECOND FLOOR PLAN



BASEMENT PLAN



FIRST FLOOR PLAN

FLOOR PLANS OF THE JORDAN SCHOOL, WATERFORD, CONN.

School Board Journal



THE AMERICAN School Board Journal

DEVOTED TO
LEGISLATIVE AND EXECUTIVE SCHOOL OFFICIALS
WILLIAM C. BRUCE, Editor

THE TEACHER SUPPLY.

The problem of the employment of teachers for the school year 1919-20 must be solved during the month of May by a majority of boards of education. The present supply of teachers is far below the desirable amount and there is reason to believe that the situation will grow worse rather than better as the months go on. An effort should be made, we think, to (1) hold every possible teacher now in the service, (2) secure the return to teaching of all those who entered war work or other occupations during the period of the war, and (3) to ensure the entry into the profession of all graduates of normal schools, university training courses, etc. Prompt and concerted efforts by school boards and other authorities will, we think, be effective in handling the immediate problem and prevent a recurrence of the embarrassment of teacherless classrooms which obtained last year.

Teaching as a calling has not been enhanced recently in the opinion of a majority of the people, and the publicity which has been given to the salary schedules in the large and middle-size cities, has served to discourage teachers as a class and to attract their attention to other forms of work. The public as a whole, and especially young women in high schools who have been obliged to make a vocational choice since the beginning of the war, have received a very low idea of the possibilities of the teaching calling. The honorable and socially beneficial character of the profession, and the pleasant character of the work, have been entirely forgotten in the all pervading spread of the notion that the compensation is inadequate.

School boards and teachers have in their power alone the changing of public opinion concerning teaching. To solve the problem, not only to relieve the immediate need for teachers, but to prevent a recurrence of the last two years, it will be necessary to re-establish (1) the adequacy of teachers' compensation and, (2) the friendly cooperative relation between school boards and teachers.

The latter undertaking is relatively easy in the smaller communities where there is a possible personal contact between teaching staff and administrative authorities. It depends largely upon mutual understanding and confidence and may be made permanent if it is clear that both teachers and board members are working toward the same end—the welfare of the children.

In a number of the large cities no early return to a spirit of understanding between the organized teaching forces and the school administration seems to be in sight. The teachers have not assumed a professional attitude in some of the cities—New York is the worst—but are employing socialistic methods to gain their ends. An entirely new alignment and a complete renewal of correct relations on democratic lines is necessary. School board members must, in some cases, learn that they are not

autocratic in power and teachers must reawaken to the need of due respect for authority.

It will not be unwise for school boards to strain every financial resource to the limit to give teachers a satisfactory monthly wage. Generally speaking that is being done by the communities where the present situation is understood and its present as well as long range bearings on school efficiency are being given ample consideration. The majority of cities are, we think, doing what is in their power to pay an adequate wage and there will be little cause for complaint after the legislation now under way in the several states has the force of law.

PRICES WILL NOT COME DOWN.

There is some conjecture on the part of inexperienced school men and buyers for school boards, especially in the smaller towns, with reference to prices of school goods. The fact that cotton and steel have come down slightly, altho continuing high above pre-war prices, has given room for discussion and has caused delay in making the usual spring purchases.

It can be stated without fear of contradiction that for the present season at least the prices of school goods will show unusual firmness, with a tendency to advance rather than react in a downward direction. There are several very obvious reasons for this and even the conclusion of the Peace Congress at Versailles will not cause adjustments until long after the season is over.

Secretary of Labor Wilson, Commissioner of Education Claxton, and other federal authorities have been urging most earnestly and as a patriotic duty the building of schoolhouses. It is remarkable how the country has responded. The number and cost of projects for which bonds have been issued since the signing of the armistice exceed those undertaken during any full year previous to the war. The estimated shortage of school sittings is nearly 500,000 and it will be impossible despite present activities to catch up during the present year.

The lack of sittings means not only a lack of buildings, but also a corresponding shortage in furniture and other supplies and equipment. The completion of projected buildings will mean a necessary increase in the demand for desks and other school goods so that a shortage is not impossible in many lines of equipment and furniture. The connection between this condition and prices is easily determined by a reference to the ordinary law of supply and demand.

For a number of years we have urged school buyers to "BUY NOW" especially in the early spring and several months in advance of the closing of schools for the summer vacation. We urge now that school boards make up specifications and order lists and as soon as practicable have goods shipped for delivery in June or July to avoid delay and disappointment later on. Most of the failures to receive and install school goods during August and September are directly attributable to late orders for which school buyers are notorious.

School boards will not gain any advantages of price by delaying purchases. They should, therefore, cooperate with the Federal Government and assist as far as possible in our educational and industrial reconstruction by "BUILDING AND BUYING NOW."

ASKING THE IMPOSSIBLE.

There was a distinct feeling at the Chicago meeting of the Department of Superintendence against federal control of the state educational systems. "We want and need federal aid but no federal dictation" was heard many times in the lobbies of the hotels, and Mr. Magill, field secretary of the association, sought to make clear

that the Smith-Towner bill provided the aid and obviated any overbearing attitude on the part of national authorities.

The schoolmen of the country are mistaken in our opinion, if they believe that the federal government will not follow up its aid with a very complete organization for the supervision of the schools and with distinct control of the general educational policies of the states and of their subdivisions. The federal board for vocational education is showing decided tendencies to impose its will upon the states. It is in the very nature of things that federal authorities should consider themselves superior to those of the states and should enlarge upon their functions.

The proposed federal aid laws deserve more critical examination and discussion than has been accorded them. The drawbacks as well as the advantages should be heard. It will be too late to discuss them when they have the force and effect of the statute.

AN INVITATION FROM MILWAUKEE.

The National Education Association will meet in 1919 at Milwaukee, for its first post-war convention. There are indications sufficient to warrant that the meeting will be superlative in its importance in relation to educational movements during the next decade when readjustment and reconstruction will be all-important.

With the modesty becoming a periodical which is telling of its home city, we may say that Milwaukee offers many ideal advantages for persons who would combine a professionally profitable and educationally uplifting convention with a pleasant summer outing. June and July are the pleasantest months of the Wisconsin summer and the adjacency of Lake Michigan insures cool, fair weather for Milwaukee. In proximity to the city and easily accessible by rail, trolley and boat lines, there is a wonderful summer resort country, ample in variety to meet every personal preference and every pocketbook from the most modest to the most lavish.

As a city Milwaukee is large enough to afford all the metropolitan hotel, restaurant, transportation and amusement advantages, and still the community is not too large to take a hospitable interest in visitors to make them thoroughly at home as welcome guests.

For the convention itself the officers of the National Education Association have made preparations that promise a notable program. Representatives of France, Great Britain and other countries are to be present and there is a likelihood that the President of the United States will make an address.

Of the several sections of the Association, none will interest members of school boards more than the Department of School Administration, which is planning several sessions to be taken up with problems which school boards must constantly face in handling finances, teachers' salaries, building, repairs, purchases, etc. A committee of architects and educational experts on school architecture will make a report on important phases of the standardization of schoolhouse planning and construction. Mr. Albert Wunderlich, of St. Paul, has the department program in hand and promises a number of strong features.

School boards especially in the central states, can profitably send a delegation of members, including their superintendents, to the Milwaukee convention.

SCHOOL SURVEYS.

Since its fundamental utility has been changed from a means of punishing or at least embarrassing school officers, the educational survey has become a very efficient instrument

of getting a rapid and accurate view of a local school situation. The ultimate value of a survey is not, however, the investigation or even the insight which it gives into conditions. Its findings, its criticisms and its commendations are no better than mere faultfinding or idle praise unless they can be combined into a constructive school policy which abolishes abuses and evils and makes the good features of a school system even better than they have been.

It has been notable that with one or two exceptions recent school surveys have not appeared adequate from the business side. When the secretary's and treasurer's departments have been studied, the persons to do the work have been educators whose primary call for respect has been their expert knowledge of education and its philosophy. Very few indeed have been men who have had any experience of the practical kind in business affairs as purchasing agents, auditors, architects or business managers of school districts. The survey reports have accordingly been deficient in their discussion of the business side of the schools and have lacked specific and readily applicable recommendations. Even where the surveyors have been able to accurately judge of the shortcomings and abuses in a department, they have not always been able to offer a workable plan for immediate use.

The most troublesome problems of today for school boards originate in the high cost of school operation—salaries, buildings, supplies, etc. Every demand for improvements in educational facilities harks back to the item of expense and its acceptance or rejection hinges on the ability of the school district to pay for it. The business department of the schools is the center to which the educational department must constantly refer for its ability to undertake extensions or to continue special work. On the efficiency of the agency which buys and distributes, which fixes the amounts of tax levies, and accounts for funds, which builds and repairs schoolhouses, depends in large part the efficiency of the school system.

It seems only logical that the business department should be considered very seriously in any school survey and its efficiency made a matter of concern in any survey report. There is at present in the United States a considerable number of men engaged in the business side of school board officers who are competent to make the necessary studies of the business administration, and to make specific and practical suggestions for improving any bad situation. Survey directors will gain confidence for themselves and their work if they avail themselves of the services of these experienced secretaries, accountants and purchasing agents.

TEACHERS: AN EDITORIAL VIEW.

"A teacher," according to the Philadelphia Bulletin, "is a person who teaches things to people when they are young. The teacher comes to school at 8:30 o'clock and when she has gotten enough children for a mess in her room, she teaches them reading, writing, geography, grammar, arithmetic, music, drawing, cooking, board sawing, crocheting, deep breathing, bird calls, scientific eating, patriotism, plain and fancy bathing, forestry, civics, and other sciences too numerous to mention. When school is out, she stays behind with five or six of her worst scholars and tries to save the state the job of reforming them later on. After that she hurries home to make herself a new dress and snatch a hasty supper before going back to attend a lecture by an imported specialist on the history of tribal law in Patagonia, which the superintendent thinks may give her some information which may be useful in her school

work some day. A great many lecturers roam the country preying on school teachers, and some of them are very cruel, talking to them so long that the poor things have to sit up until morning, when they get home, to get their daily test papers corrected.

"School teachers' salaries range from \$30 a month up—but not far enough up to make them dizzy. On her salary, the teacher must dress nicely, buy herself things for her work which the city is too poor to get, go to 29 lectures and concerts a year, buy helpful books on pedagogy, pay her way to district, county and state institutes, and enjoy herself during a three months' vacation which her salary takes every year. In addition, the teacher is supposed to hoard away vast sums of money, so that when she becomes too nervous and cross to teach, at the age of 50 or thereabouts, she can retire and live happily ever after on her income."

TIME TO QUIT.

During the war no organization showed itself to be more responsive to requests for support of public movements than the schools. Country as well as city schools, parochial as well as public schools, "went over the top" in Red Cross, Liberty Loan, Belgian Relief and dozens of other drives. The exigencies of the times and the patriotic fervor of school officials made it necessary to take collections and to do work for various purposes with little time for consideration. School authorities acted with remarkable promptness and dispatch and it will always be to their credit that they acted with patriotic unselfishness that drew universal commendation.

The war is over and it is time, we believe, to return to a conservative policy in handling collections and drives and in permitting propaganda of any sort in the schools. However worthy they may be, international charities and national movements, except those of a strictly educational or civic nature, have little place in the schools. This is true also of most local projects. It is better to occasionally miss a worthy cause by drawing the line strictly than to let any possible selfish or commercial interests gain a foothold.

There is no valid reason for giving itinerant photographers permission to interrupt classes and to bother teachers. Charity and relief funds may be worthy causes in themselves but adults who are economically independent are more proper contributors than children. The paving of main street or the beautification of

the town square may be exceedingly important but these are projects for the parents.

It is well to discover the wherefore as well as the why of applications for school help and to apply a rigid test of educational and public utility before acceding.

TWO NEW STATE SUPERINTENDENTS.

Two states, Tennessee and Michigan, have just changed executive heads of their respective school systems. In the former state Mr. W. S. Sherrill has resigned to undertake other educational work and is now succeeded by Mr. Albert S. Williams. The new incumbent has made a record as state inspector of high schools during the past two years and has had broad experience as a rural and city school administrator. By general consent of the teaching profession of the state, he is considered the logical successor of Mr. Sherrill.

In Michigan the untimely death of Fred. S. Keeler interrupted a forward looking administration of the state department. The newly elected superintendent is Mr. T. E. Johnson of Coldwater. Mr. Johnson is intimately familiar with conditions in the state and has a considerable reputation for executive ability and educational foresight.

QUALITIES OF A CITY SUPERINTENDENT.

A teacher writing to Public Service suggests ten qualities which a city superintendent should possess. There is nothing new in the suggestion but it is well worth repeating.

We need a real scholar, not a cheap pedagog,
A man of wide learning, not full of flabby theory,

A practical man, not a dreamy enthusiast, ✓
A man of human feeling, not an ambitious schemer,

A man of his word, not a fluent liar, ✓
A man of sufficient dignity of soul not to be conscious of his dignity,

A man of gentle manners, not an imitation gentleman,

A man of good stiff backbone, not a moral imbecile,
A man who could earn a decent living if not teaching,

In short, a man, not a male teacher. ✓
Substitute woman for man and read all over again.

The Buffalo board of education believes in taking time by the forelock. It has raised the salary of Supt. E. C. Hartwell to \$10,000 per year to pay him what he is worth and to prevent other cities from taking him away.

Faultfinders are never out of school jobs.

Experience is a great teacher, but by the time it hands a man his diploma, he is beyond using it.

A doctor of philosophy is frequently a nervous man who hasn't any.

The U. S. War Department has taken over the entire educational work organized in France by the Y. M. C. A. The Army Educational Commission thus brings into existence the first national university.

Ingratitude is the reward of public service, says a school board member who was recently voted down when he sought reelection.

Storm signals are permanently displayed over the school headquarters of New York and Chicago.

What pupils think of their teacher in after life is of far greater importance than what they say at present.



MR. T. E. JOHNSON
State Superintendent of Schools for Michigan

Mr. Johnson is widely known as a school executive for his work in Coldwater and other Michigan cities. He has been a member of the State Board of Education for some years.

RURAL SCHOOL GROUNDS

T. A. Tefft, Jamestown, N. Y.

Bare, harsh, cheerless, immodest—these are the facts about the average rural school ground.

Children cannot be forced to like school. They like it only when it is worth liking. And when they like it, they learn. The fanciest school apparatus will not atone for a charmless school-ground. A child could not be blamed for playing truant if he were sent to school in a graveyard.

It would seem that land is very precious. Very little of it can be afforded for a school-ground. A quarter of an acre of good land will raise four bushels of wheat, and this wheat may be worth eight dollars a year at war prices. We cannot afford to devote such valuable property to children. We can find a bit of swamp, or a sand hill, or a treeless waste.

The school building is often little more than a large box. It has not even the charm of proper proportions. A different shape, with the same cost, might have made an attractive building. Even a little attention to design might make a great difference in the looks of a schoolhouse; and the mere looks of a schoolhouse has a wonderful influence on the child. The railroad corporations like to build attractive station-houses altho they have no greater capacity than homely ones.

If children are daily surrounded by influences that elevate them, that make them clean and well-ordered, that make them love flowers and pictures, and proper decorations, they at last reach that degree of culture where nothing else will please them. When they grow up and have homes of their own, they must have them clean, neat, bright with pictures and surrounded with shade trees and flowers, for they have been brought up to be happy in no other environment.

The rural schoolhouses should be built in accordance with the laws of sanitation and modern civilization.

We will assume that there is one person in each rural school district who desires to renovate and improve the school premises. There may be two. If the person is the school commissioner or the teacher, so much the better.

Let this person call a meeting of the patrons at the schoolhouse. Lay before the people the necessity of improving the premises. Quote the opinions of intelligent persons respecting the degrading influence of wretched surroundings. The cooperation of the most influential men of the district should be secured before the meeting is called.

Propose a "bee" for improving the school-grounds. John Smith will agree to repair the fence (or take it away if it is not needed). Jones will plow and harrow the ground, if plowing is necessary. Brown will sow the grass seed. Black and Green and White will go about the neighborhood with their teams for trees and bushes. Some of these may be got in the edges of the woods, but many of the bushes can be picked up in the front yards. Others will give their labor towards grading, planting and cleaning up the place.

The whole thing can be done in one day. Perhaps Arbor Day can be chosen.

The plan of the place is the most important part of the entire undertaking—the right kind of a plan for the improvement of the grounds. The person who calls the meeting should have a definite plan in mind; and this plan may be discussed and adopted.

If an artist is to make a portrait, he first draws a few bold strokes, representing the general outline. He "blocks out" the picture. With

the general plan well in mind, he gradually works in the incidentals and the details—the nose, eyes, beard.

Most persons reverse this natural order when they plant their grounds. They first ask about the kinds of roses, the soil for snowballs, how far apart hollyhocks should be planted. It is as if the artist first asked about the color of the eyes and the fashion of the necktie; or as if the architect first chose the color of paint and then planned his building. The result of this type of planting is that there is no plan, and the yard means nothing when it is done. Begin with the plan, not with the plants.

The home ground should be homelike, retired and cosy. The schoolground should be set off from the bare fields and should be open enough to allow of playgrounds. It should be hollow, well planted on the sides, open in the interior. The side next the highway should contain a little planting. The place should be a picture, not a mere collection of trees and bushes.

Do not scatter the trees over the place. They will be in the way. The boys will break them down. Moreover, trees do not look well when scattered over the whole area. When an artist makes a picture with many people in it, he does not place the persons one by one all over his canvas. He masses them. Thereby he secures a stronger effect. He focuses attention, rather than distributes it.

Take a sheet of paper. With four lines represent the borders of the school grounds. Indicate the schoolhouse and the outbuildings. Existing trees may be located by small circles. Now you have the facts or the fixed points.

Now put in the walks. The first fixed point is the front door. The other fixed point is the place or places at which the children enter the grounds. Join these points by the most direct and simplest curves possible. That is all there is of it. In many, or perhaps most places, the house is so near the highway that only a straight walk is possible or advisable.

Next comes the planting. Let it be irregular and natural, and represent it by a wavy line. First of all, cover up the outhouses. Then plant heavily on the side next the swamp or a disagreeable barnyard, or in the direction of the prevailing wind. Leave openings in your plan wherever there are views to be had of fine old trees, attractive farm houses, a brook or a beautiful hill or field. Throw a handful of shrubs into the corners by the steps and about the bare corners of the building.

Every effort should be exerted to do the work well in the beginning. If all preparations are thoroly considered, and the details carried out with care, the premises should become more attractive, year by year, with almost no annual outlay of labor.

In many cases the school yard is already level or well graded and has a good sod, and it is not necessary to plot it and re-seed it. It should be said that the sod on old lawns can be renewed without plowing it up. In the bare or thin places, scratch up the ground with an iron-toothed rake, apply a little fertilizer, and sow more seed. Weedy lawns are those in which the sod is poor. It may be necessary to pull out the weeds; but after they are out, the land should be quickly covered with sod or they will come in again. Annual weeds, as pigweed, ragweed, can usually be crowded out by merely securing a heavier sod. A little clover seed will often be a good addition for it supplies nitrogen and has an excellent mechanical effect on the soil.

The ideal time to prepare the land is in the fall, before the heavy rains come. Then sow in the fall, and again in early spring on a late snow. However the work may be done in spring, but the danger is that it will be put off so long that the young grass will not become established before the dry hot weather comes.

The borders should be planted thick. Plow up the strip. Never plant these trees and bushes in holes cut in the sod. Scatter the bushes and trees promiscuously in the narrow border. In small school grounds it is easy to run thru these borders occasionally with a cultivator for the first year or two. Make the edges of this border irregular. Plant the lowest bushes on the inner edge.

For all such things as lilacs, mock-oranges, Japan quinces and bushes that are found along the roadsides, two or three feet apart is about right. Some will die anyway. Cut them back one-half when they are planted. They will look thin and stiff for two or three years; but after that they will crowd the spaces full, lop over on the sod, and make a billow of green. Prepare the land well, plant carefully and let the bushes alone.

We now come to the details—the particular kinds of plants to use. One great principle will simplify the matter; the main planting should be for foliage effects. That is, think first of giving the place a heavy border mass. Flowers are mere decorations.

Select those trees and shrubs which are the commonest, because they are cheapest, hardiest and most likely to grow. There is no district so poor and bare that enough plants cannot be secured, without money for the school yard. You will find them in the woods, in old yards, along the fences. It is little matter if no one knows their names. What is handsomer than a little tangled fence row?

Scatter in a few trees along the fence and about the buildings. Maples, brasswood, elms, ashes, buttonwood, pepperidge, oaks, beeches, birches, hickories, poplars, a few trees of pine or spruce or hemlock—any of these are excellent. If the country is bleak, a rather heavy planting of evergreen about the border, in the place of so much shrubbery, is excellent.

For shrubs, use the common things to be found in the woods and swales, together with roots which can be had in every old yard. Willows, osiers, witchhazel, dogwood, wild roses, thornapples, haws, elders, sumac, wild honeysuckles—these and others can be found in every school district. From the farm yard can be secured snowballs, spireas, lilaes, forsythias, mock-oranges, roses, snowberries, larberries, flowering currants, honeysuckles and the like.

Vines can be used to excellent purpose on the outbuildings or on the schoolhouse itself. The common wild Virginia creeper is the most serviceable. On brick or stone schoolhouses the Boston ivy or Japanese ampelopsis may be used, unless the location is very bleak. This is not hardy in some northern states. Honeysuckles, clematis and bittersweet are also attractive.

Against these heavy borders and in the angles about the building, many kinds of flowering plants can be grown. The flowers are much more easily cared for in such positions than they are in the middle of the lawn and they also show off better.

It is impossible to grow many flowers in the school ground under present conditions, for what is everybody's business is nobody's business, and then the place is neglected all thru the summer. But the children can be taught to plant many things.

Only those flowers should be used which are very easy to grow and which have the habit of

(Concluded on Page 80)

School Board Journal



School Lands and Funds.

Every common school in the state, whether located in a city or in the country, is a "state institution," protected, controlled, and regulated by the state, and all public school property is held in trust for common school purposes; the trustees having no vested right to the property.—Board of Education of Jefferson County v. Board of Education of City of Louisville, 206 S. W. 869, Ky.

Schools and School Districts.

In an action by citizens and taxpayers affected by the proceedings of a board of directors of a special school district annexing territory, the complaint, alleging nonexistence of facts giving authority to enlarge the district, states a cause of action.—Weiderholz v. Lisbon Special School Dist. No. 19, 169 N. W. 809, N. D.

Failure to elect a school treasurer did not render proceedings for the organization of a consolidated school district void or uncompleted, under the Iowa supplementary code of 1913, §§ 2754, 2794a, and the Code, § 2795.—Linn Grove Independent Consol. School Dist. v. Rokkan, 169 N. W. 656, Ia.

The findings of the trial court, in proceedings for the enlargement of a school district, that an order of the county commissioner annexing territory to district within a village containing less than 7,000 inhabitants, as provided by the Minnesota general statutes of 1913, § 2677, was oppressive and unjust, are held not sustained by the evidence.—Common School Dist. No. 85 v. Renville County, 170 N. W. 216, Minn.

Under the Idaho laws of 1911, c. 159, § 47, subd. (b) as amended by the laws of 1913, c. 115, § 4, and by the laws of 1913, c. 119, § 1, a petition to create a school district by division of one district, to authorize county commissioners to do so must be signed by at least two-thirds of heads of families and residents of district to be divided.—Wheeler v. Board of Commissioners of Bingham County, 176 P. 566, Ida.

The title and control of common school property, situated in a county district, under the Kentucky statutes, § 4426a, is in county board of education, such property, upon subsequent annexation of territory embracing district to city of first class, passes into the possession and under the control of the city board of education under the Kentucky statutes, § 2978a, subds. 1 and 2.—Board of Education of Jefferson County v. Board of Education of City of Louisville, 206 S. W. 869, Ky.

School District Property.

"Recreational activities" within the meaning of Civic Center Act, establishing a civic center in every public schoolhouse, includes dancing; "recreation" meaning refreshment of strength or spirits after toil, and "activity" meaning a physical or gymnastic exercise, an agile performance.—McClure v. Board of Education of City of Visalia, 176 P. 711, Cal. App.

A Civic Center act establishing a civic center in every public schoolhouse, and vesting the management of such center in a board of trustees or board of education, authorizes a board of education in its discretion to permit under proper supervision dancing in the schoolhouse as a form of recreational activity.—McClure v. Board of Education of City of Visalia, 176 P. 711, Cal. App.

The California pol. code, § 1617, subd. 18, providing that, in case grant of use of school building will necessitate removal of furniture, board of trustees may be instructed by qualified electors, has reference only to county schools, and board of education in city is not bound by the limitation.—McClure v. Board of Education of City of Visalia, 176 P. 711, Cal. App.

The California statutes of 1899, p. 99, § 798, investing boards of education with the management of school buildings, in case of a city of the fifth class, is not limited by the pol. code, § 1617, subd. 18, authorizing school meetings to instruct school trustees.—McClure v. Board of Education of City of Visalia, 176 P. 711, Cal. App.

A board of education has no authority to grant the use of a school building to any citizen as an exclusive privilege.—McClure v. Board of Education of City of Visalia, 176 P. 711, Cal. App.

Claims Against School Districts.

The carrying of a motion at an annual meeting of electors of a school district, "that if we can get out of paying the \$450 to S. we will," did not amount to repudiation of the obligation or bar a later recognition thereof.—O'Laughlin v. Dorn, 169 N. W. 572, Wis.

The trustees of a school who have been enjoined from doing certain acts which they had a right to do for the benefit of the school district may, upon the dissolution of the injunction, maintain an action on the bond to recover damages sustained by the school district.—Wilder v. Miller, 206 S. W. 293, Ky.

School District Taxation.

Under the Kentucky acts of 1918, c. 139, § 1, repealing the acts of 1916, c. 24, § 15, and substituting a new section, it is held that warrants provided for might be sold by the county superintendents and school boards for the immediate payment of teacher's salaries.—Adams v. Greene, 206 S. W. 759, Ky.

In view of the purpose of the Kentucky acts of 1918, c. 139, § 1, repealing the acts of 1916, c. 24, § 15, and substituting a new section, to provide for the prompt payment of school teachers before the school fund shall become available, and in view of other sections of the act of 1916, it is held that warrants for school teacher's salary fall within the provisions of the Kentucky statutes, § 4688a, relating to interest on warrants, so whenever the condition of school funds justify the call for outstanding warrants, the treasurer will make the call and interest will cease.—Adams v. Greene, 206 S. W. 759, Ky.

That a school board has paid commissioners for collecting taxes to a de facto tax collector will not preclude a de jure collector from collecting from the board the commissions on such taxes which he would have collected if inducted into office at the time he was entitled to it.—Marshall v. School Dist. of Borough of Uniontown, 105 A. 78, Pa.

In a suit by taxpayers to enjoin a trustee from erecting a schoolhouse, and selling bonds to meet costs thereof, the burden rests upon the plaintiffs to prove allegations of their complaint, that the proposed action is an unjust, unreasonable, and unauthorized expenditure of funds and removal of the existing school.—Leedy v. Idle, 121 N. E. 323, Ind. App.

Teachers.

Provision of contract of teacher at annual salary, payable in twelve monthly installments, that the salary of a teacher shall not be paid for July and August when he is excused from teaching in summer school by the board of trustees, is held, in view of conditions of service hitherto prevailing, which contract provides shall prevail, to mean when teacher is excused at his request.—Norton v. State, 176 P. 347, Wash.

Where a Quakeress, a school teacher, stated in answer to questions on hearing before the board of superintendents, that she would not uphold the country in resisting invasion, did not want to help the United States in carrying on the war, would not urge her pupils to support the war, to do Red Cross work, or to buy thrift stamps, and was opposed to war against Germany, a finding dismissing her on grounds of incompetency and inefficiency, within the New York education law, § 872, as added by the New York laws of 1917, c. 786, § 1, will not be disturbed.—McDowell v. Board of Education of City of New York, 172 N. Y. S. 590.

Pupils.

An ordinance denying pupils the right to attend school unless vaccinated for smallpox, there being smallpox in the community, does not deprive pupils or parents of liberty or property without due process of law, under the Texas constitution U. S. Amend. 14, and the Texas constitution, art. 1, § 19, nor violate the Texas constitution, art. 1, § 6.—City of New Braunfels v. Waldschmidt, 207 S. W. 303, Tex.

An ordinance, denying school children the right to attend school unless vaccinated for smallpox, was not inconsistent with the law for compulsory education exempting from its requirement "any child whose bodily condition is such as to render attendance inadvisable."—City of New Braunfels v. Waldschmidt, 207 S. W. 303, Tex.

An ordinance, in a city with thirty per cent Mexican population, denying children the right to attend school unless vaccinated for smallpox, was not unreasonable, altho at the time there was only one case of smallpox in the town.—City of New Braunfels v. Waldschmidt, 207 S. W. 303, Tex.

Under the New Hampshire laws of 1901, c. 96,



D. A. GROUT,
Superintendent of Schools,
Portland, Ore.

§ 1, and section 4 as amended by the laws of 1905, c. 19, a town school district is liable for tuition of a child attending a school in another district in grades above the sixth, where such school district has no grade above the sixth.—Parker v. Town of Lyndeborough, 105 A. 7, N. H.

Under the New Hampshire laws of 1901, c. 96, § 1, a parent may recover tuition for a child sent to a school in another district, altho he did not notify the town school board what high school or academy the child was to attend, where board had knowledge of fact.—Parker v. Town of Lyndeborough, 105 A. 7, N. H.

The word "town," in the laws of 1901, c. 96, § 1, requiring towns not maintaining a high school to pay tuition of scholars sent to other districts, means the town school district, and not the town.—Parker v. Town of Lyndeborough, 105 A. 7, N. H.



AMONG BOARDS OF EDUCATION.

Dixon, Ill. The two school districts of the city have been consolidated by vote of the citizens. One large, modern high school and one school board for the entire district are planned.

Detroit, Mich. The city council has made a number of reductions in its estimates for the year 1919-20 and has included a reduction of the superintendent's salary from \$12,000 to \$9,000. The reduction was made on the basis that the successor to Mr. Chadsey should first prove his worth before he received the salary of former years.

The St. Louis Chamber of Commerce has given out the names of ten men from which three Democrats will be selected for members of the board. Of the ten candidates, one is a hotel owner, three are contractors and architects, three are attorneys, one is a physician, one a storekeeper and one an undertaker.

The school board of Cleveland has announced that it will assume liability for accidents to teachers if it excludes them from the provisions of the workmen's compensation law.

The city officials of Chicago have for the past five months withheld the monthly salaries of Secretary Lewis E. Larson, Attorney Angus E. Shannon and three assistants. The total salaries of these men amount to \$15,000 and have been due since October, 1918, the date they were reinstated and took their places by order of the Supreme Court.

Galena, Ill. The board of education has suggested that the girls of the graduation class adopt a simple style of dress for graduation. The girls have been asked to limit themselves to two dresses and to forego hats and gloves.

(Continued on Page 64)

School Board Journal

SCHOOL ADMINISTRATION NOTES

THE ALL YEAR SCHOOL IN MASON CITY.

A distinct contribution to the discussion of the value of the all year school plan has been made by Capt. F. M. Hammitt, of Genesee, Ill., who for a number of years was superintendent of the high school at Mason City, Ia., and who since the beginning of the war has been in the United States Army. During a period of three years at Mason City, Mr. Hammitt conducted the high school on the all-year basis and found it entirely satisfactory. In fact the entire school system from the kindergarten on was organized on this plan.

In Mason City the school year is divided into four quarters of twelve weeks each, and promotions are made at the end of each quarter. The promotions are made from the grades to the high schools on the same basis, so that the system articulates thruout. Each grade is divided into three divisions designated as A, B and C, and there are twelve grades as under the conventional plan.

The main arguments used in Mason City for the all-year school were rather simple. The question was simply asked, Why conduct school only nine months? The school authorities thereby threw the entire burden to proof on the old plan. As direct arguments, the following eight statements were made:

1. It is not good business to keep a million dollar investment idle three months in the year.

2. Under present city conditions, a great many children have nothing to do when out of school. The Child Labor Laws prevent them working for other people, and the home does not have employment for them.

3. Tho we may feel chagrined that in this land of wealth the economic conditions force many students to leave school as soon as they are able to earn money, we must recognize it as a fact. These pupils attending school the year around would be part way thru high school by the time they reached the age limit, and experience has shown that after boys and girls are half way thru high school they generally finish. Hence, we can feel assured that the year around school will mean that the next generation will be much better educated; that a bigger per cent will be high school graduates.

4. Since the average wage of the high school graduate is considerably higher than the eighth grade graduates, getting more people thru high school will improve the economic condition of the masses.

5. By running school the year around, students who have to work their way thru school can choose the three months in which they can find the most lucrative employment.

6. Small children can stay out during the cold winter months and still make as much progress as they had formerly made. Every child is entitled to 432 weeks of schooling, and if part of these are taken during the summer, the expense of that child will be lessened, because the summer school can be run at less expense.

7. By getting students thru high school younger, public pressure will force the establishment of a junior college.

8. Educational loss occasioned by the forgetting during the summer months will be prevented.

When the plan was put in operation, the following objections were made:

1. The plan will be injurious to the health of the children.

2. Some parents did not want their children to attend the entire year because they expected to make visits or to take trips. They felt at the same time their children didn't like to see their classmates get ahead of them by attending summer school. They consequently opposed the entire idea.

3. The idea was expressed that students would enter high school at too young an age and would not be able to do the work of the high school grades.

4. General inertia and indifference was one of the difficulties which arose.

The experience was interesting. In the high school only one student who attended summer school stayed out a quarter because of ill health, and investigation failed to disclose that this was due in any way to over-exertion in school. On the other hand, eight students who had not attended summer school quit the high school on account of ill health.

A few students stayed out during the severe months from January to March. Students who attended summer school in the high school during 1916 did better work during the nine months following than they had done during the nine preceding.

The attendance at the summer quarter during the three years was as follows:

	First	Second	Third
High School	130	143	192
Grades	817	987	1236

The enrollment during the other 9 months was 3436.

An interesting side light on the summer school as representing the attitude of the citizens was an agitation begun with the intention of enforcing the compulsory school law during the summer quarter. The citizens who were behind the movement felt that the law should be enforced, in the summer as well as during the nine months of the regular school year. This was not supported by the school authorities.

Problems of administration of the all year school are increased over those of the nine months' term. Some adjustment is necessary in changing from the semester to the quarter basis. In Capt Hammitt's experience this, however, was handled without serious objection on the part of students as to the group in which the students were placed.

The courses which are offered in the high school for half year periods were readjusted on the basis of twelve or twenty-four weeks, according to the difficulty of the subjects and the credits were adjusted accordingly. In general the proposition was laid down that the problems of administration must not interfere with the success of the school or with the working out of a plan which is essentially correct.

MICHIGAN SCHOOLMEN IN CONVENTION.

The annual meeting of the Michigan School Superintendents and School Board Members was held March 31 to April 1st, at Ann Arbor, Mich. Supt. J. W. Sexton of Lansing presided at the sessions.

Supt. E. O. Marsh of Jackson, Mich., who spoke on "The Junior High School," advocated an arrangement of courses suited for attracting pupils into high school and designed at the same time, to prepare for life those who do not go to high school. Supt. J. I. Silvernale of Menominee, who discussed the same subject, recited his experiences with the Junior High School. He pointed out that in Menominee, subjects are included in the course which are intended to be of help to pupils who may be in the last school year. These pupils are given the advantage of the best teachers and class periods provide for recitation and for supervised study.

Supt. E. J. Lederle of Hastings, led in a discussion of teachers' salaries. Supt. Coburn of Battle Creek, pointed out that \$150 beyond the contracted amount had been added to the teachers' salaries this year. He showed how practice and theory are being harmonized in the operation of a practical merit system. Prof. C. O. Davis called attention to the new rule of the North Central Association of Colleges and Secondary Schools in accordance with which approval is withheld from schools where salaries are inadequate.

Attorney Robert E. Barber of Highland Park, who led in an impromptu discussion, called attention to the gross inequalities in the rate of taxation necessary to secure adequate schooling for various communities, and raised the question whether state and national aid is not the correct solution. Pres. R. W. Cooper of Lansing, discussed the situation of the small home owner and pointed out that each Lansing teacher has been given an increase of \$200 for next year. Pres. Cooper argued for a pay-as-you-go policy, with higher taxes at the present time rather than a heavy bonding policy. Supt. Clarence Vliet of Birmingham, called attention to relief measures, and urged the elimination of favoritism toward heavy taxpayers when making assessments on property.

At the close of this session, the following committees were appointed: Nominations, Supt. C. H.

Carrick, Charlotte, Supt. H. A. Davis of Port Huron, and Pres. Carter of Birmingham. The Resolutions Committee included Supt. W. E. Olds of Marshall, O. C. Seelye of Highland Park, and Prof. C. O. Davis of Ann Arbor.

At the second session, the topic was "The All-Year School." Supt. W. W. Warner of Saginaw favored the plan, while Asst. Prin. Allen of Cass Technical High School, Detroit, made a strong plea for the school from an industrial standpoint. Supt. A. N. Cody of Flint discussed the teaching of academic subjects under the plan, Supt. E. H. Drake of Kalamazoo, finances, Supt. G. L. Jenner of Pontiac, the teaching staff, and Supt. Paul C. Stetson of Muskegon, the four-quarter plan.

At the third session, Supt. A. E. Fraze of Dowagiac, spoke on "A Survey of a School Building Program," Mr. H. C. Daley of Highland Park, "Attainments in School Subjects as Affected by Measurements," Supt. H. C. Griffey of Adrian, "Industrial Work under the Smith-Hughes Law," Mr. C. D. Dawson of Grand Rapids, "The Use of Standard Tests in Classifying and Promoting Children," and Mr. R. W. Cooper of Lansing, "School Credit for Outside Bible Study," "Scientific Choice and Evaluation of Items for Rating the Quality of Teaching," was discussed by Supt. W. L. Connor of Republic.

The meeting closed with the election of the following officers: President, Robert E. Barber, Highland Park, Mich.; Vice-President, Supt. E. E. Fell, Holland, Mich.; Secretary, H. C. Daley, Highland Park, Mich.

In adopting a set of resolutions, the members approved a change in the time and place of meeting, approved a salary schedule for teachers providing for wages at least equal to those given in skilled lines, and approved a rule of the North Central Association of Colleges and Secondary Schools providing that secondary schools which do not pay adequate salaries to teachers be not accredited by the Association.

H. C. Daley.

FOR BUSY SUPERINTENDENTS

POINTS FOR OBSERVATION IN SCHOOL-ROOM VISITATION.

L. S. Mills, Plainville, Connecticut.

1. Physical conditions:
Ventilation, temperature.
Neatness.
Floors.
Desks.
Boards—walls.
Pupils—teacher.

One or two quick glances are all that is needed to take in the physical conditions. These are absolutely essential in measuring up the work. When physical conditions are poor, the work suffers.

2. Pupils:

Attendance.
Seating.
What doing?
Order—contented.

If there is poor attendance the cause must be discovered, and if illegal, remedied at once. In most rooms the light, the heating, the size of the pupils, and often the classification determines the seating. Has the teacher considered these things and acted accordingly?

The work of pupils during study periods is very important. If a teacher has this well organized and every pupil profitably at work, there is direct and positive evidence that the school is making some progress.

Unless the room be reasonably quiet and pupils working in a contented and businesslike manner, there will be waste of time and energy. Pupils are not usually contented and quiet in their work, especially in the middle and upper grades, unless they feel the work is worth while and that they are making progress.

3. Teacher:

Voice and manner.
What doing?

A teacher who is natural and businesslike in voice and manner is to be preferred to one who

(Continued on Page 61)



"Shakespeare" with the Victrola, Bancroft School, Omaha, Nebr.

The Victrola will make your closing exercises more attractive

The last day of school is an event in the life of every pupil. Excitedly they wait its coming. Parents in sympathy feel its thrill at home. To the teacher all are looking that the event may be worthy the anticipation.

On the teacher, then, is the responsibility of making the time a happy one, or a disappointment.

What is your program to be? Is it indoors or outdoors? Is it a play or a pageant? Is it patriotic? Will it be folk dancing? Will it be Indian lore?

The Victrola is the teacher's friend. It can be made to serve in any kind of exercises that are desired. Here right at hand is the means to make this year's closing exercises the best your school has ever had. The Victrola will be a part of many many splendid programs. Let the Victor serve *your* program.

For further information, write to the

Educational Department

Victor Talking Machine Co.
Camden, N. J.



To insure Victor quality, always look for the famous trademark, "His Master's Voice." It is on all products of the Victor Talking Machine Company.

Victrola



Victrola XXV, \$90
especially manufactured
for School use

When the Victrola is not in use, the horn can be placed under the instrument safe and secure from danger, and the cabinet can be locked to protect it from dust and promiscuous use by irresponsible people.

In Big School Buildings Provide for the Removal of Ashes Electrically



With the G & G Telescopic Hoist
with Automatic Gear Shifting
Brake Device and Silencer.

(3 electric and 2 hand power models) you can get the ashes and waste either to the sidewalk or directly into ash truck, employing only one or two men, according to model.

Please write for the pamphlet which interests you most:

"Schools and Auditoriums"
"Apartment Houses and Hotels"
"Railroad Buildings"
"What G & G Model Shall I Use?"
"G & G Sidewalk Doors"
"G & G Automatic Sidewalk Door Opening and Closing Device with Spring Guard Gate"
"G & G Standard Ash Cans"
"G & G Ash Can Trucks"

Model E—Electric. That part of Hoist and G & G Spring Guard Gates shown telescope below grade, and the G & G Sidewalk Doors lie flush with the grade when Hoist is not in operation.

Model D has overhead crane, permitting ashes to be dumped into truck without rehandling or unhooking of cans at sidewalk level.

GILLIS & GEOGHEGAN
541 West Broadway New York

Established 1866

PHILADELPHIA — W. G. Culbert,
1503 Sansom Street.

CHICAGO — Kaufman & Thomas,
708 Peoples Gas Building.

ST. LOUIS — Concrete Steel Fireproofing Co., Syndicate Trust Bldg.

MINNEAPOLIS — Morgan Gerrish Co., 501 S. Sixth Street.

GILLIS & GEOGHEGAN, Sherbrooke, Quebec, Canada

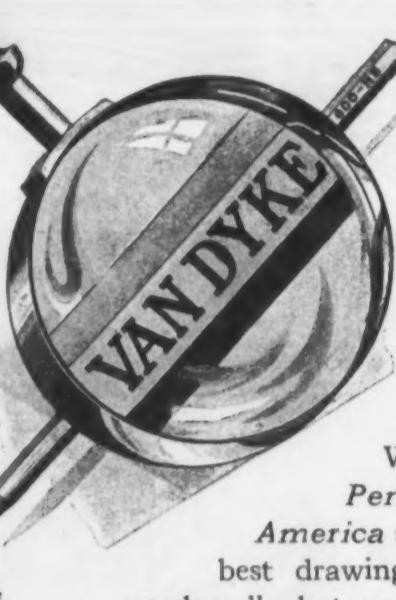
CLEVELAND — R. L. Quisenberry Company, Schofield Building.

OMAHA — F. H. Turney & Co., 403 Farnum Building.

INDIANAPOLIS — Vonnegut Hardware Company.

KANSAS CITY — Robt. O. Smith, Railway Exchange Building.

Branch Offices in Other Principal Cities



THE
NAME
OF
QUALITY

When the Oldest
Pencil Factory in
America says, "This is the
best drawing pencil we can
produce," what more could be said?

We invite your most critical testing of

VAN DYKE DRAWING PENCILS

The closer your inspection the more forcibly is revealed the supreme quality of Van Dyke Drawing Pencils.

MADE IN U. S. A.

Let us know the grades of lead you most generally use. Free samples to instructors of industrial art, technical and manual training, free hand drawing or any others interested in the advancement of American schools.



MADE IN U. S. A. BY

EBERHARD FABER

NEW YORK CHICAGO BOSTON SAN FRANCISCO

Buyers of Typewriter Ribbons and Carbons THIS MACHINE IS FREE! CAN YOU USE IT?

THE AJAX EYELET FASTENER BINDS PAPER, CLOTH OR LEATHER

Automatically Feeds Loose Eyelets of three different lengths. Fill the reservoir at the top of the machine with a handful of loose Eyelets, either long (2 to 50 sheets), medium (2 to 30 sheets), or short (2 to 16 sheets), according to the number of sheets you may wish to bind. Press the lever downward, and the object is thus eyeleted together. It punches the hole, feeds the eyelet, and clinches it in one operation of the lever.



WE WILL GIVE THIS MACHINE TO YOU WITHOUT CHARGE WITH an ORDER of CARBON PAPER or TYPEWRITER RIBBONS.
We can match any sheet you now use, and save you from 10% to 30%. We can satisfy you as to quality and price.

If you are not in immediate need of these supplies, ask about our coupon system.

MANIFOLD MANUFACTURING COMPANY
80 BOYLSTON ST., BOSTON, MASS.

Strayer-Engelhardt Record Card Series

A complete series of Record Cards which meet every requirement of the Report of the N. E. A. on Uniform Records and Reports, and in addition provides for further essential information.

Admission, Discharge and Promotion Card
Superintendent's Record Card
Office Record Card
Transfer Cards
Transfer Report Card
Pupils' Report Card
Physical Record Card
Teachers' Record
Pupils' Registration Card
Dental Card
Permanent Census Card
Elementary School Record Card, Superintendent's Office

Elementary School Record Card
Principal's Office
High School Record Card, Superintendent's Office
High School Record Card, Principal's Office
High School Registration Card
High School Program Card
Residence Card
Elementary Attendance and Scholarship Record (Paper)
Teacher's Application Blank (Paper)
Census Enumerator's Sheet Paper

Elementary Principals' Record Book
(Loose Leaf)

Age-Grade Progress Table

Age-Grade Computation Table

C. F. WILLIAMS & SON, INC.

Fred A. Williams, Pres.

36 Beaver Street

Albany, N. Y.



The Material Determines the Quality The Quality Determines the Price

We make three grades of Holden Book Covers.
Each grade is of a DISTINCTIVE quality
and ALL three grades have the following

CHARACTERISTIC HOLDEN FEATURES

Simplicity of Design; Ease of Adjustment.
Ability to Protect and Reinforce Free Text Books
so as to Double their Length of Service as well as
Keep them Clean and Neat.

THE HOLDEN PATENT BOOK COVER CO.

MILES C. HOLDEN, President

SPRINGFIELD, MASSACHUSETTS

(Concluded from Page 58)

is over pleasant or one who is cross and nagging.
4. Register:

Timetable.
Plans.

These show the organization of the school and of the work. A few minutes' quiet study of these is necessary to get a direct bearing on affairs and to check up the occupation of the teacher and school in accord with the timetable, the plans and the course of study. In short, by examination of these the supervisor finds where the school is at. By these, too, the teacher shows her ability or lack of ability to conduct the school as a business proposition and according to the line of procedure mapped out.

5. The recitation.

A recitation is the real test of the efficiency of the school. It shows the interest, skill, and information of the teacher and is an accurate measure of the work done by the pupils. It reveals their methods of thought and methods of work. These methods of thought and work are exactly what the teacher has trained, or failed to train them to be. Hence, the vital element is the teacher. The habits and thoughts and methods of study employed by the pupils in the school work come out in the recitation.

Questions for one observing to decide are:

1. Was the assignment correct as to subject matter and length?
2. Did the pupils understand the assignment?
3. Was the assignment thoroly prepared?
4. What did the recitation bring out that the pupils did not have before?
5. In short, did the pupils know more at the end of the period than at the beginning? If not, the recitation was a mere hearing exercise on the part of the teacher, not a teaching exercise.
6. Was the teacher prepared?
7. Written work of the school:

Board and paper work of the teacher.
Is it neat and correct?
Board and paper work of the pupils.
Is it neat, well written, orderly?

It is seldom necessary to look beyond the work

of the teacher, or even the school register to have a very correct idea of the work of the pupils. If an illkept, incorrect register suits a teacher, such papers from the pupils will please her, and she will have a desk abounding with them.

8. Part to be played by superintendent on visit:

1. Make observations as already indicated.
2. Give written test if desired.

There are several ways to do this:

May write three or four questions on the board on entering and indicate the grade to answer them in writing. This need not disturb the other grades or the schedule of the school.

May ask oral questions based on the plans or recitation heard.

May give dictation test of five minutes to the whole school.

Superintendent should usually give the oral tests the last thing in order that the work of the school may not be disturbed before he has an opportunity to observe as before indicated.

3. Talk to the school, commanding pupils on good work and suggesting improvement.
4. Talk with teacher if an intermission allows time.
5. Write suggestions in suggestion or plan book.

FOR BUSY SUPERINTENDENTS.

Supt. W. C. Reavis, of Alton, Ill., has given to the board a summary of the activities of the instruction department during the past year. The report shows that the departmental system has been introduced in the upper grades of five schools, with the Junior High School in operation in the Lincoln School. A complete system of school reports and forms has been installed, as well as a system of filing for the superintendent's office. A semi-ungraded room for retarded pupils has been opened, a part-time school for employed children has been established and the supervised study plan has been adopted for the Lincoln Junior High school and for the high school.

An extension department for teachers was created to offer standard normal school courses

during the year and to give assistance in teaching certain subjects in the course of study. In connection with the report, recommendations were made looking to the erection of a new high school, and for new grade buildings and additions to present structures. A plea was made for the extension of manual training and domestic science work and for the establishment of additional ungraded rooms. In the direction of sanitation, it is especially requested that a free school clinic and a vacation school be established and that better equipment be provided for school playgrounds.

A recent summary of the statistics for the schools of Illinois for the year ending June, 1918, shows that \$3,711,973.35 have been distributed by the state to county superintendents, \$25,995,598.37 have been paid out in teachers' salaries, and \$193,500 in salaries of county superintendents. The amounts received from local taxation amounted to \$44,722,179.05.

The high schools had a property valuation of \$33,271,463 and the expenditures for maintenance, instruction, buildings and equipment amounted to \$11,410,270. There are 5,476 teachers employed in high schools, divided among 2,146 men and 2,330 women.

The work of the home teacher in California is distinctly that of a pioneer in a new field. The "Home Teacher Law" which was passed in 1915, is permissive only and is intended to be of particular help to women of foreign birth and speech. The city of Oakland which has three home teachers working in districts where the population is largely of foreign birth, began this work with the idea of helping the woman in the home to overcome defects in her education and environment and to help her to broaden her horizon and usefulness. The special work of the home teacher is to get in direct touch with the woman in the home, to teach what Americanism means, the duties and responsibilities of the people, and to point out the place of the woman as the wife of a naturalized citizen.

Livingston, Mont. The board of trustees have decided to eliminate the positions of supervisor of drawing and writing and apply the salaries

(Concluded on Page 63)

Berger Steel Lockers

Doubled capacity (a result of our country's demands), complete standardization of parts and a big reserve stock, enable us to meet your orders for Steel Lockers with

Prompt Shipment

At the same time you get a price based on **quantity** production whether you order two lockers or a thousand.

Berger Steel Lockers are easily put together by inexperienced help. They can be grouped to fit your space, and rearrangements to suit changing conditions are an easy matter.

Their **quality** is known in hundreds of schools from Boston to Los Angeles.

Catalog Y-7, Suggestions and Floor Plans are yours on request—without charge.

Address your nearest Berger Branch.

The Berger Mfg. Co., Canton, O.

Branches: Boston, New York, Philadelphia, Chicago, St. Louis, Minneapolis, San Francisco. Export Dept.: Berger Bldg., New York City, U. S. A.



BERGER

STEEL FILING CASES - LOCKERS - RIMS AND SHELVING



STANDARD

The Safest
in a Panic

Where Seconds Count

When the fire gong rings out its fateful warning and the tongues of flame dart in hot pursuit of fleeing children, time is vital. A minute's delay, even a second's hesitation, may mean confusion and disaster.

Standard Spiral Fire Escape

Fastest and Safest

Children never hesitate to slide down a spiral chute. They merely sit down and slide, sheltered from flames and heat, unable to recognize their dizzy height above the ground.

Small children progress as rapidly as the older and larger, for gravity carries them all alike.

Write for full description and free estimate of cost. Give floor heights.

STANDARD CONVEYOR COMPANY
(Formerly Minnesota Manufacturers' Ass'n)
NORTH ST. PAUL, MINN.

Chicago Office:
549 W. Washington St.

Installation of open Spiral
Fire Escape at St. Aemilian's Orphan Asylum,
St. Francis, Wis.



LYON LOCKER

THE LOCKER YOU CAN'T PRY OPEN

ONLY ONE WAY IN— UNLOCK THE DOOR

A straight pull on the handle raises the locking fingers, opens the door. You can't pry the locker open and pilfer the contents without completely wrecking the locker. Write for Bulletin 201.

LYON METALLIC MFG. CO., Aurora, Ill.

Chicago Detroit Cincinnati Pittsburgh New York



Printing as an After-War School Subject

Printers' ink, in the form of advertising and promotion literature, will prove to be the tonic that will rejuvenate those industries that have lain dormant during the war.

Our schools must turn from the teaching of war activities to those subjects that have to do with the building up of trade and commerce. Of these subjects printing stands pre-eminent, and, on account of the tremendous influence and power it will exert, should be included in every school desiring to install vocational or humanistic features.

Printing stands unexcelled as a practical device for teaching the elements of English composition, spelling, capitalization, indentation, paragraphing, spacing, and utilizes all the principles of good design. It correlates with and motivates nearly all other school subjects. The qualities of patience, skill, neatness and perseverance are inculcated upon the child's mind in a high degree.

Printing should be taught in every type of school. This department would be pleased to furnish any information possible regarding the introduction of a course in Printing in your school. Our full line of literature is yours for the asking.

Education Department

American Type Founders Company

300 Communipaw Avenue, Jersey City, N. J.

DURAND STEEL LOCKERS

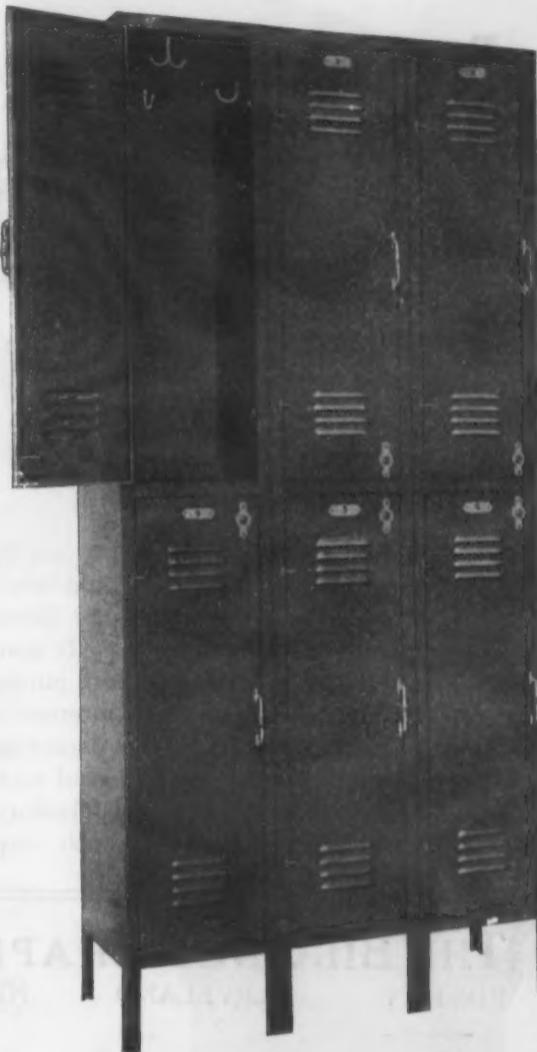
THREE'S a lot in starting the day right.

The pupil who hangs up his coat and hat in a Durand Steel Locker every morning is given the initial impulse in the direction of neatness, discipline and efficiency.

He thinks of his school as a place where everything has its proper place and time. He's as proud to belong to such a school as a soldier is to belong to a crack regiment.

Teachers and parents share this feeling. Durand Steel Lockers, handsome, sanitary, fireproof, substantial, are the sign of a good school.

SEND FOR CATALOGUE



DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building
Chicago

921 Vanderbilt Building
New York City

(Concluded from Page 61)

formerly paid to them to help increase the salaries of regular grade teachers. They believe this will increase the efficiency of the corps so that results to the children will be more than off-set by the loss of supervision. They believe that there may be such a thing as teachers leaning too heavily upon the supervisors and not feeling enough the responsibility for results in special work. Should additional supervisors be employed in the future, it is considered just as important that supervisors of arithmetic, language, etc., be employed rather than less vital subject of drawing. Furthermore, they believe there is such a thing as the payroll of a district of this size becoming top-heavy for supervision, and that sometimes the regular teachers are over-supervised in "special" subjects to the detriment of old-fashioned fundamental work. At any rate they have the courage to try results of eliminating whether other districts are doing likewise or not.

Peabody College for Teachers, Nashville, Tenn., has been commissioned to undertake a survey of the school system at Paducah, Ky. Dr. F. B. Dresslar has charge of the work on buildings, Mr. J. J. Didcoct will study the high school, Dr. Charles McMurry the course of study, Dr. Thos. Alexander the elementary schools, Mr. Gebhart music, Mr. Paul Barnes physical education and Ada M. Fields domestic science. The work is to be completed this spring.

A recent report on the savings of school children at Bridgeton, N. J., shows that there was a total of \$37,850 in Liberty Bonds, \$13,480 in war savings stamps and \$1,710 in thrift stamps. The savings of the teachers amounted to \$25,000. The enrollment of the Bridgeton schools is 2,600.

A survey of the state school system of Alabama has been begun by eight experts of the Bureau of Education at Washington. The work is to be completed and a report made in July.

Springfield, Ill. The principals of the grade schools, at a conference, approved a plan whereby those who failed at the last examinations may be promoted in June provided they make up all work in which they are deficient. It is the opin-

ion of the principals that a large percentage of these students will be promoted.

Minneapolis, Minn. A four-day short course and conference of superintendents was held in March at the College of Engineers of the University of Minnesota. Addresses were given by State Supt. M. J. McConnell, Dean W. W. Charters of the College of Education of the University of Illinois, Pres. D. W. Waldo of the Kalamazoo (Mich.) high school, Dean Lotus D. Coffman of the College of Education of the University of Minnesota, and Dean William Russell of the College of Education of the University of Iowa.

Supt. Frank B. Cooper has recommended to the school board of Seattle the adoption of the junior high-school for the city schools.

Supt. H. C. Weber of Nashville, Tenn., has recommended a twelve months' school plan, with the year divided into three terms. Supt. Weber holds that the schools should be open continuously not only for day classes, but also for instruction in any subject day or night.

Plans to place the schools of the state of Virginia on a full twelve months' working basis were adopted at a recent convention of the superintendents of Virginia, held at Newport News. The year would be divided into four terms of twelve weeks each and every pupil would be required to complete three terms. The backward student, under the plan, is permitted to complete extra work in the three months, while the bright pupil is enabled to complete his education in three years.

Minneapolis, Minn. A new kind of summer school providing for one extra term's work is planned by the board provided the bond issue is approved by the legislature. Under the new plan, the schools will cover one-third of a year's work in eight weeks and students are permitted to take three subjects. The plan, in effect, is practically an all-year school and differs only in the quantity of work to be covered and the length of the term.

Deputy Supt. Frank Cody of Detroit, Mich., who has just been appointed to fill the position of acting superintendent, has announced his entire accord with the high standards set by former Supt. Chadsey and has indicated his desire to

carry out the policies initiated by his predecessor. Mr. Cody came to Delray, now a part of Detroit, in 1890. He was superintendent of schools when that village became a part of Detroit. He was appointed supervisor of special studies when Mr. Chadsey became superintendent and was made assistant superintendent five years ago. He has several times been mentioned as a possible appointee to the office.

PERSONAL NEWS OF SUPERINTENDENTS.

Mr. H. H. Hagen, superintendent of the schools of North Dixon, Ill., has accepted a position as instructor in the Crane High School, Chicago, for the next year.

Mr. Lester C. Ary has been appointed superintendent of schools at Rock Rapids, Ia., to succeed the late Prof. Wilson. Mr. Ary is a graduate of Iowa State College and completed special work at Columbia University.

Mr. H. D. Lee of Hancock, Mich., has accepted the superintendency at Waterloo, Ia.

Supt. S. G. Reinersten has been re-elected as head of the Alta Consolidated Schools at Alta, Ia., with a salary of \$2,600.

Supt. John Barnhill of Parsons, Kans., and Supt. C. O. Smith of Marysville, Kans., have been appointed members of the State Board of Education.

L. W. Fast of Albion, Mich., has resigned to accept the superintendency at Mt. Clemens, Mich.

The new Americanization law of New Hampshire in effect, legislates out of office the present officials of the Department of Public Instruction including Supt. E. L. Butterfield, Deputy Supts. G. H. Whitcher, Harriet Huntress and James N. Pringle. It also abolishes the board of vocational education consisting of O. H. Brown and Stanley H. Abbott, and the trustees of the normal schools who are Charles W. Vaughan, Francis T. Clayton, Arthur B. Rotch, George H. Whitcher and Inez F. Nason.

The new board of five will represent quite completely the geographical sections of the state and will be composed entirely of non-professional school teachers. It will have a Catholic representative and at least one woman.

For School Interior Decorating

ARTONE **FLAT FINISH**

FROM the standpoint of economy, durability, beauty and sanitation, Artone Flat Finish is the ideal flat finish for interior School decorating.

Every school board member and Superintendent of Schools should read "A Treatise on Color and Color Blendings for the Walls of Schools." It contains results of color tests on both pupils and teachers as well as other interesting information regarding the decorating of school interiors. We will send copies of the treatise and also beautiful color chart of Artone Flat Finish upon request.

THE BILLINGS-CHAPIN CO.
BOSTON CLEVELAND NEW YORK

(Continued from Page 57)

Mayor Thompson of Chicago has reopened his fight on the school board with his decision to force Supt. Charles E. Chadsey from his position. The matter became public when Mr. Chadsey, by an error, received a pay check for \$748.50, representing his salary for part of March. The city comptroller acting on the advice of the assistant corporation counsel, was compelled to withdraw the warrant inasmuch as Mr. Chadsey is considered by the Thompson officials a "pretended" superintendent and is not legally holding the office. Mr. Chadsey's appointment to the office was made by the old board of education which existed under the law prior to April 20, 1917, the members of which were restored to office by the Supreme Court.

The legislative committee of the Minneapolis board of education has asked the Hennepin County House Delegation to present a bill in the legislature providing for the separation of the schools from the city purchasing department. The separation of the two departments is asked to eliminate delays and inconvenience, and to effect a reduction in operating costs.

A law recently passed in Iowa, provides that presidents of school boards in the county shall hold a convention and shall elect a board of six members, none of whom may be presidents of boards. The board will act in an advisory capacity to the superintendent and will have power to assist in the adoption of county textbooks and in matters pertaining to consolidated schools.

The school board of Cambridge, Mass., has fixed the school hours from 8:30 to 11:30 and from 12:30 to 2:00 o'clock. The hours were adopted following a direct canvass of the parents.

The school board of Melrose, Mass., has notified the students of the high school that undergraduates who become members of fraternities will not be permitted to hold class honors or to compete on school or class athletic teams. In addition, parents have been asked to use their influence against the operation of secret societies in the school.

Lowell, Mass. The school board has ordered that a list of available experts be prepared from

which to select a man who is capable of conducting a survey of the school system.

New York, N. Y. A disagreement has arisen between the Mayor and the members of the board of education over the control of school funds. By a paradoxical arrangement, the money for the school system is appropriated by the city, but is expended by the board of education which is a state body not amenable to the dictates of the city authorities. The trouble came to a head early in the present year when the Commissioner of Accounts served Auditor Henry R. M. Cook with a subpoena, directing him to produce certain books for his examination. At the direction of Supt. W. L. Ettinger, Mr. Cook refused to comply with the order and contempt proceedings were started by the city authorities.

The present controversy between the city and the educational authorities adds another to a long list of clashes. Very much of the trouble and friction in the administration of the school affairs during recent years has been due to the action of municipal officers attempting to control the school system and to determine educational policies by the authority which such officers improperly and illegally exercised in the appropriation of funds for school purposes.

Most of the controversies have been over the school budget because the board of estimate insists that money must be used only for the purpose indicated in the budget and the school authorities deny the claim of the city authorities. The school board holds that it has a right to spend its funds as it sees fit without the dictation of the city authorities.

President J. M. Loeb and the members of the Chicago board of education have gone ahead with plans for outflanking the mayor and preventing the reinstatement of the "solid six" in place of the present board. Under the terms of the new law, passed by the legislature two years ago, President Loeb and Mrs. Thornton were appointed for five-year terms and they still have three years to serve. The remaining sixteen members are holdovers and automatically relinquish their places as soon as the new members are appointed and confirmed.

**U. S. N.
DECK PAINT**
**for porches, floors and walls
DRIES HARD OVERNIGHT**

MANY of the leading schools of the country standardize on U. S. N. Deck Paint on account of the service it gives and its economy. U. S. N. Deck Paint will stand the hardest kind of use, and, in addition, can be scrubbed repeatedly without injuring its surface. A room painted with U. S. N. Deck Paint is ready for use twelve hours after painting, under average conditions.

Made in many beautiful shades, color chart of which will be sent upon request.

THE BILLINGS CHAPIN CO.
BOSTON CLEVELAND NEW YORK

Supt. Charles E. Chadsey, who was appointed in March as head of the schools, has come in for his share of the mayor's ire but has announced that he will continue to serve the schools. Mr. Chadsey came without any political alliances and was selected by a committee of citizens, with the understanding that he was legally elected for four years. Up to the time of going to press he has been refused the pay due him for his services during the month of March. In this respect he is in the same situation that has annoyed Mr. Lewis E. Larson, business manager of the schools and Mr. Angus Roy Shannon, attorney. Neither of the latter officers of the board has received any pay since he was reinstated in office by the Supreme Court in October, 1918. The city treasurer steadfastly denies the validity of the pay vouchers presented for these men.

Pres. Mark Thomson of the Cleveland Board of Education urges the all-year plan for the schools. Mr. Thomsen in supporting the plan, points to the reduced expense, the wider use of the school plant, a shorter vacation period and higher salaries for teachers. As a final conclusion, he points to the saving of time in the education of students, resulting in early completion of the professional training and earlier marriages.

An investigation of the New York City school board has been asked by Supt. W. L. Ettinger as a result of a controversy between him and the board over an invitation by President A. S. Somers to the city authorities to go over the school accounts. President Somers in defending his action, points out that the investigation does not remove any authority in educational matters from the board and its offices but is merely an attempt to determine where the city money goes and for what it is spent. He points out that in making large appropriations for school purposes the city has a right to know whether the money is being spent wisely or for personal ends. The request for the accounting was made by the city authorities and was approved by Pres. Somers in a friendly attempt to cooperate.

Jacksonville, Fla. The board has extended the school day fifteen minutes. Sessions open at nine in the morning and close at 3:45 in the afternoon.

(Concluded on Page 67)



Folk Dances and Singing Games

Folk Dances and Singing Games are the essential element in "May Day" festivals and pageants. These new Folk Dances have been recorded under expert direction. Here are melodies from the old pioneer days, music which grew in out-of-the-way mountains, plains and farms during the early days of our history. Here we find the real beginnings of American music. These old dances were done long, long ago by the people who originated them on the green on the Village Square to the fiddling of the Village Musician, who had danced them many times himself, and who consequently knew ex-

actly the rhythm and cadence of the dancers.

The principal features of these new folk dance recordings is the introduction of novelty solo instruments at each repetition of the tunes, thereby avoiding monotony and greatly adding to the interest in either playing or dancing these Folk Dances and Singing Games. These dances are so simple that all can do them easily; they are so easy to teach that any teacher can teach them; they are so full of simple, wholesome, attractive gaiety that the results of doing them are good fellowship and good spirit.

Arkansas Traveller—White Cockade. (American Country Dances.)	- - -	Columbia Band	A3076
Miss McLeod's Reel—Hull's Victory. (American Country Dances.)	- - -	Columbia Band	10 in.—85c.
Chicken Reel. (American Country Dance.)	- - -	Columbia Band	A3077
Old Zip Coon, or Turkey in the Straw. (American Country Dance.)	- - -	Columbia Band	10 in.—85c.
Pop Goes the Weazel. (American Country Dance.)	- - -	Columbia Band	A3078
Jolly is the Miller. (American Country Dance.)	- - -	Columbia Band	10 in.—85c.
Sir Roger De Coverly, a Colonial or Virginia Reel. (American Country Dance.)	- - -	Columbia Band	A3079
Blackberry Blossoms. (Irish Folk Dance.)	- - -	Columbia Band	10 in.—85c.
Hansel and Gretel. (Singing Game.)	- - -	Columbia Band	A3080
Sandal Polka—Swiss May Dance. (Singing Games.)	- - -	Columbia Band	10 in.—85c.
Goddeses. (English Country Dance.)	- - -	Columbia Band	A3081
Oranges and Lemons. (English Country Dance.)	- - -	Columbia Band	10 in.—85c.

Marches, Singing Games, and Folk Dances for use in School and Community Playgrounds are best given on Columbia Records. The Columbia tone can be heard on the Village Square or on the School Campus.

A complete list of records of American Folk Dances, English Country Dances, Morris Dances, and records made under the personal direction of Cecil J. Sharp will be sent upon request. Mark in the coupon the literature desired, and send to

EDUCATIONAL DEPARTMENT
COLUMBIA GRAPHOPHONE COMPANY
Woolworth Building, New York City

London Factory: 102 Clerkenwell Road, E. C.



Special Price to Schools
\$80.00

Columbia School Grafonola
with Pushmobile

Doors fitted with lock and key.
Seven shelves for records.
Reproducer, winding-crank and turn-table may be locked in pushmobile.
Either Oak or Mahogany.



Clip this coupon and mail today:

COLUMBIA GRAPHOPHONE COMPANY
Educational Department
Woolworth Building, New York City
Please send the following literature:
(Check subject desired)

Folk Dance Record List
 Grafonola in the Class Room
 Music Appreciation Record List
 "Music Moods" Bulletin

Name _____
Town _____
State _____
Grade _____ (A. J. May)

Now for a Memorial Playground

SLIDES
OCEAN WAVES
SEE-SAWS
SWINGS
OUTDOOR GYMNASIA
GIANT STRIDES
ETC., ETC.

BASE BALLS
BASKET BALLS
VOLLEY BALLS
AND NETS
AND EVERYTHING
FOR PLAYGROUND
GAMES



WHAT COULD be more fitting than a **PLAYGROUND** or **COMPLETE RECREATION CENTER** as a memorial to the boys who have served in khaki and blue? We shall gladly furnish sketches, specifications and estimates for complete plant, including landscaping, fencing, memorial gate, community house, children's playgrounds, pools, athletic grounds, etc., etc.

THE **FUN-FUL** LINE
PLAYGROUND EQUIPMENT

*Let us help you with our "Fun-Ful" Apparatus
"Everything for the Playground"*

WRITE FOR FREE BOOK AND FULL INFORMATION

HILL-STANDARD CO.

116 Fun-Ful Avenue

Recreation Engineers

ANDERSON, INDIANA

Paper Does Not Curl or Blister
Under

Our
"Every Purpose"
Adhesives for
School Use:

Photo-Desk and
No. 800 Gluey Pastes
Ideal Paste Powder
Liquid Glue

NICE TO USE

GLEICH'S
VELVET PASTE

SNOW WHITE

VERY STRONG

Produced Under
The Same Perfect Conditions as
Gleich's Black or Blue Black

AMERICAN SCHOOL INK

Obtainable in Any Size Container
from Quart Bottles to
50-Gal. Barrels.

We Supply Inks and
Pastes to Fit the
Particular Needs of
Schools.

Standardize Your Ink
and Paste Purchases
with us and Secure
Serviceable Economy.

GUARANTEED PRODUCTS

Ask for Prices on
Your Year's Requirements

THE COMMERCIAL PASTE CO.

COLUMBUS, OHIO

**Home of the
Permanent Exhibit**



When
in
New York

Visit
this
Exhibit

We are showing the Newest and Best in School Furniture, Supplies, and Equipment of all kinds.

This exhibit is visited yearly by thousands of School Superintendents, Principals, and Teachers.

Write us for particulars.

EDUCATIONAL EXHIBIT COMPANY

70 Fifth Avenue

NEW YORK CITY

Physical Development of the Child An Essential Duty in Every School

YEARS ago little attention was devoted to the health of the pupil. It is generally conceded—he came to school to *learn*.

Gradually, year by year, the development of the growing body came to be fully as important as the growing brain.

Now, advanced educators are inaugurating a definite and systematic method of determining the pupil's physical progress by periodically recording his weight and height.

For accuracy and durability, a most excellent scale for the school room—with the additional children's measuring device feature.

SCHOOL *The DeLUXE* SCALES WITH MEASURING DEVICE

A compact, sturdily built machine (no loose weights) attractively finished in oven-baked enamel—snow white.

The DELUXE Scale adds distinction to any school—always accurate and built to endure.

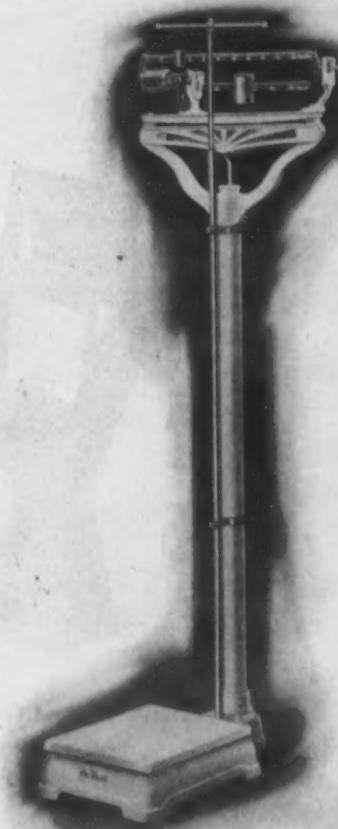
The Chicago Scale Company will gladly furnish particulars to School Superintendents, Instructors, etc., on request.



ESTABLISHED 1863
MASON.DAVIS & CO.

7700-7740 So. Chicago Ave.

Grand Crossing Chicago, Ill.



(Concluded from Page 64)

Peoria, Ill. The school board has made deductions in the salaries of a number of teachers who remained away from school rather than submit to vaccination. The action revokes a previous verbal promise made to the teachers that no one would be penalized for non-compliance or for illness. The teachers maintain that they merely availed themselves of the privilege to absent themselves from school for twenty days and hold that it is an injustice to them inasmuch as they were willing to work. Teachers who were vaccinated but were detained at home by illness were given full pay.

The school district of Colorado City, Colo., in May, united with Colorado Springs. The administration of the schools will hereafter be conducted under the management of the city of Colorado Springs.

PERSONAL NEWS OF SCHOOL OFFICIALS.

Mr. Joseph Beals has been elected business manager of the school board at Worcester, Mass.

Mr. Ernest Stephens has been appointed secretary of the school board of Lynn, Mass., to succeed John Andrew who has gone to France as educational expert for the Y. M. C. A. War Work Council. Supt. Jackson will fulfill the duties of the office until Mr. Stephens returns from military service.

Mr. Earl C. Mills has been elected president of the board at Des Moines, Ia.

R. D. Minard, secretary of the school board at St. Charles, Ia., for forty years, died at his home on March 12th at the age of 92. He held the position of secretary of the Masons' Lodge for thirty years.

Dr. B. B. Sells has been elected president of the board at Independence, Ia.

Mr. A. L. Clinite, for many years secretary of the Des Moines board of education resigned on March 17th. He has been succeeded in office by Mr. Geo. L. Garton, a postal employee. The office pays \$4,200 per year.

CINCINNATI SCHOOLMASTERS HONOR DR. WITHROW.

Too frequently in the past have schoolmasters

toiled in the arduous service of the schools and have gone to their reward without receiving the gratitude and praise which was their due from the school patrons. This was not the case in Cincinnati recently when Dr. John M. Withrow, a beloved physician and an efficient member of the board, was given a testimonial by his fellow associates. The occasion was the annual dinner of the Schoolmasters' Club and the nature of the event brought out a capacity assembly of friends and admirers.

Mr. Walter Peoples, president of the Club, acted as toastmaster. Special addresses of congratulation on Dr. Withrow's long service on the board were made by former superintendent, F. B. Dyer and the present superintendent, R. J. Condon. Dr. Withrow responded in his cleverest vein, drawing his illustrations from early experiences in the practice of medicine.

Among the guests who made brief addresses were Mayor Galvin, Samuel Ach, Judge Hickenlooper, G. M. Mallon, Malcolm McAvoy, Charles H. Stephens, all of Cincinnati, and Mark L. Thompson, president of the Cleveland board of education, and President Hughes of Miami University.

TEACHERS' CONTRACTS.

At the recent annual meeting of the Kane County, Ill., School Officers' Association, resolutions were adopted which seek to make binding the contract of the teacher and to prevent the employment of teachers who are not free from unexpired agreements. The resolutions read:

Whereas, It is a rule and custom of boards of education to hire and employ teachers under written contracts, which are binding on both, and

Whereas, In numerous cases such contracts have been broken by the teachers thus employed by accepting positions elsewhere, without first securing a release from their contract, and

Whereas, In many cases this has been detrimental to the school and in direct violation of the agreement, causing delay in school work and embarrassing the board, and

Whereas, The breaking of such contracts without just causes, reacts on the minds and feelings of the pupils under such teachers,

Now, therefore, be it resolved, That in the

future, we shall insist on all such contracts being lived up to in the spirit and letter in which they are entered, and that we will refuse to enter into any contract with a teacher for his or her service unless such applicant is free or released from any unexpired agreement under which he or she may have been employed.

SCHOOLROOM HYGIENE AND SANITATION.

Fort Dodge, Ia. The board has inaugurated a number of innovations in the direction of better health among the pupils and the prevention of disease. A free dental clinic has successfully been conducted for the past year. About 375 children were given free treatment at an estimated cost to the district of \$500. A milk dispensary was maintained in practically all the buildings for the benefit of children who are considered under-nourished and whose parents are unable to pay. A school physician is employed on a yearly salary and a school nurse looks after the health of the pupils in the school and takes charge of the followup work in the home.

Ravenna, O. The board has taken steps to employ an educational expert to conduct a survey of the school system.

Philadelphia, Pa. The citizens have asked the school board to proceed with the survey of the school system, which was provided for in a resolution adopted a year ago. A committee was appointed to make the investigation and to offer recommendations for improving the efficiency of the schools.

A practical course for attendant nurses has been inaugurated in the public schools of Minneapolis to supplement the supply of graduate nurses. The course will cover eight months, with 21 hours of practice work per week and the last two months devoted to residence work at the Infirmary for Girls and Women established by the Minneapolis Y. W. C. A.

The New Jersey Department of Health, in a recent report, declared that of 21,263 school children examined in Newark, about 15,000 or 75 per cent were subnormal physically. The largest number of defects were in cases of defective teeth, enlarged tonsils and enlarged neck glands.

THE QUALITY SUPERIOR SANITARY AND CHAIRS--GUARANTEED



St. Louis Pedestal Desk
No. 43



Superior Steel
Stationary Desk and Chair
No. 30



Superior Steel
Commercial Desk and Chair
No. 33

OUR ample manufacturing, storage and shipping facilities enable us to give prompt and efficient service. We operate two large factories devoted exclusively to the manufacture of school furniture, equipped throughout with the latest and most modern machinery. Many of the machines

OUR FACILITIES FOR



Superior Steel Tablet Arm Chair
No. 45

WRITE TO
DISTRIBUTOR
NEAREST YOU
FOR CATALOGS
AND PRICES

MANUFACTURED BY

The Superior
MUSKEGON



Tubular Steel
Auditorium Chair
No. 133

QUALITY LINE SCHOOL STEEL DESKS GUARANTEED TO PLEASE

ONES FOR SERVING YOU

Our facilities are of a type used exclusively by ourselves. Three large warehouses provide generous storage space for regular finished stock as described in this advertisement. Also, we carry in stock a full line of SUPERIOR SEMI-STEEL DESKS AND CHAIRS.

the Superior Line is
distributed as follows:

Superior School Supply Co.
Kansas City, Mo.

Southern Seating Company
New Orleans, La.

J. H. Adamson
141 West 42nd St.
New York City



Tubular Steel
Auditorium Chair
No. 132



Superior Steel Tablet Arm Settee
No. 56

If the type of desk or chair you are interested in is not shown here, write distributor nearest you for catalogs covering your requirements.



Superior Steel
Adjustable Desk and Chair
No. 31



Superior Steel
Adjustable Desk and Settee
No. 31½



Superior Steel
Study and Typewriter Desk
No. 91

Seating Company MICHIGAN

The
UNIVENT
"LIVE OUTDOORS - INDOORS"

Solves the Ventilating Problems
of Every School



100% Fresh Air Diffusion—the UNIVENT Way

IT IS A PROVEN FACT that in a system where the air is discharged laterally into a room, it must be discharged at a low velocity to prevent drafts and at the required low velocity it is impossible to procure absolute diffusion of fresh air.

It is also a proven fact that only approximate results can be arrived at, so far as proper distribution to the various rooms is concerned, with a central or duct system. Some rooms always receive too much air, others too little. It is impossible to properly balance them.

Compare with the UNIVENT

The UNIVENT takes the fresh air *direct from the outside*—heats it and shoots it toward the ceiling at a 1000 feet per minute velocity or better, under absolute control.

The diffusion is so perfect that a 72° or any other temperature can be maintained at floor, ceiling and windows—the ideal, simple unit heating and ventilating system, economical and 100% efficient. (See illustration above.)

Wouldn't it be well to be fully posted up on this system? Perhaps your schools would benefit.

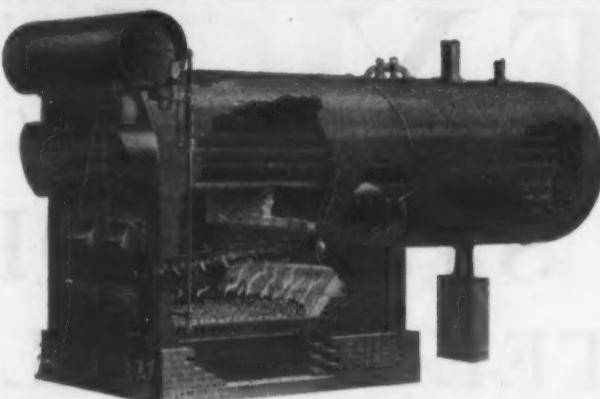
Write for our Deluxe Catalogue in colors.



Improper Diffusion—Where Air is Discharged Laterally

Moline Heat
EVERYWHERE
Moline Illinois

KEWANEE School Heating Boilers



KEWANEE SMOKELESS FIREBOX BOILER—Portable Type.

KEWANEE Smokeless Firebox Boilers burn soft coal without smoke.

A smoking chimney is proof positive that at least 20% of your coal is being wasted.

Thousands of **KEWANEE** Boilers installed in schools throughout the United States and Canada are saving coal and giving satisfaction in every way.

Are you going to build a school this year?

Then write for **KEWANEE** "On the Job"—it tells why.

KEWANEE BOILER COMPANY

Kewanee, Illinois



BRANCH OFFICES:
 CHICAGO NEW YORK KANSAS CITY MINNEAPOLIS DETROIT
 ST. LOUIS LOS ANGELES SALT LAKE CITY DALLAS
 TOLEDO MILWAUKEE PITTSBURGH WASHINGTON
 CLEVELAND

INTERNATIONAL HEAVY DUTY HEATER

Alert minds and healthy bodies in the schoolroom depend upon fresh air and equable temperature.

To warm large areas perfectly requires a powerful heater.



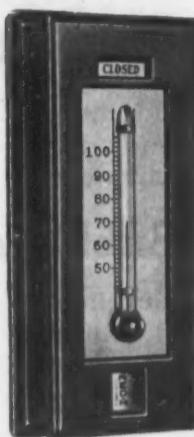
The **INTERNATIONAL** Heavy Duty Heater as its name implies is designed for just such service.

SEND FOR CATALOG 957-S

INTERNATIONAL HEATER Co.

UTICA, N. Y.

NEW YORK CHICAGO NASHUA, N. H.



JOHNSON— The Accepted Standard

School architecture like all forms of building construction has now accepted standards. Sizes of classrooms are standard. Fireproof construction is being standardized. Temperature regulation was standardized years ago by Johnson.

After 38 years of experience we have perfected the



Johnson (Heat Humidity) Control

and the satisfactory operation of thousands of school plants tells its own story of our progress. We are not overstating our case when we assert that Johnson is the accepted standard in temperature regulation.

The Model Metal Diaphragm Thermostat and the "Sylphon" Metal Bellows Diaphragm Valve make the long-looked-for and only ALL-METAL SYSTEM.

It costs more, but it is the best.

The Johnson Service Company
MILWAUKEE, WISCONSIN

THE OLDEST—THE LARGEST—AND ALWAYS THE MOST PROGRESSIVE



TEACHERS' SALARIES

PORTSMOUTH SALARY SCHEDULE.

The school board of Portsmouth, Va., early in April, adopted a complete salary schedule for teachers and principals. The schedule which is to become effective in September, 1919, is as follows:

White Elementary Teachers—Minimum \$700, with annual increases of \$50 to a maximum of \$1,100 (assistants to principals are given an additional salary of \$50).

Colored Teachers—Minimum \$400, with increases of \$40 up to a maximum of \$720. Special teachers and teachers of high school subjects will be given a maximum of \$760.

Night School Teachers—White teachers will be given \$25 a month the first year, \$30 the second year, \$35 the third and succeeding years for a month of twelve nights, two hours per night. Colored teachers will receive \$15 per month the first year, \$18 the second year and \$21 the third and succeeding years, for a month of twelve nights, two hours per night.

White High School and Special Teachers—Minimum \$850, with annual increases of \$50 to a maximum of \$1,250. Heads of departments will receive \$50 a year in addition to the regular salary.

White Elementary Supervising Principals and Assistant Principal of High School—Minimum \$1,600, with increases of \$100 to a maximum of \$2,200.

Colored Elementary Principals—Minimum \$750, with increases of \$75 to a maximum of \$1,200.

White High School Principals—Minimum \$1,800, with increases of \$100 to a maximum of \$2,500.

Heads of Commercial and Manual Training Departments—Minimum \$1,300, with increases of \$100 to a maximum of \$1,800.

The minimum qualifications for a new teacher in elementary schools are graduation from a standard two-year normal school, and for a white high school teacher graduation from a standard college.

Yearly increases are given only upon recommendation of the superintendent for successful work and professional growth. Maximum salaries as provided, will be given teachers or principals only upon the condition that the teacher or principal has pursued work for one summer of six weeks, within the preceding four years, at an approved college or university. The course should consist of at least three subjects, two of which should be in education, excepting that for colored teachers, who are required merely to take six weeks at any standard summer school.

IMPROVED TEACHING DEPENDENT ON HIGHER SALARIES.

Supt. James H. Harris of Dubuque, Ia., in a recent statement to the press, urged the entire reorganization of the salary schedule for teachers in order that teachers may not only meet the high cost of living but that they may better themselves professionally. Supt. Harris pointed to the traditional conception of the teacher as one who worked merely for the love of the cause with a reward in the next world but he declared that kind words will not pay bills and teachers will enjoy their rest in the next world no less if they can keep out of debt for the present. What is needed is a completely new point of view, not merely a modification of the old attitude. The teacher must be measured in terms of service and not in the light of tradition.

The war, more than any other event in history, has opened our eyes to the value and importance of education. Whatever greatness, whatever prosperity, whatever prestige we possess as a nation, is due in its last analysis, to the schools and to those who control, administer and operate them.

This national service of the teachers has been rendered by a group of workers that is ridiculously undervalued and underpaid.

On the other hand, the war has opened to numbers of teachers opportunities in other lines of work which are conducive to shorter hours and better pay. When young girls with only a limited education can step into business positions with an initial salary of \$1,100 or \$1,200, it is not to be expected that occupations requiring years of training and high educational qualifications will make a very strong appeal with its salary of a few hundred dollars.

The attitude toward the salaries of the teaching profession, in the opinion of Supt. Harris, is not one of merely furnishing a living wage—an important one just now—but an amount sufficient to enable them by study, travel, summer school work and other means to realize in themselves and impart to the youth the riches of their own minds.

Supt. Harris quotes from statistics gathered by the Illinois Teachers' Association and from a recent communication on the same subject by Dr. P. P. Claxton of the United States Bureau of Education. He concludes with a quotation from a recent statement of Pres. C. F. Thwing of Adelbert College, Cleveland:

"No amount we can pay our teachers is any adequate compensation for what they give. Their salary depends upon public opinion and the appreciation the people have of education. Education is the great interest of the American people. One-seventh of all the population is directly interested in education. The teachers are inspirers, leaders, and formers of the character of the next generation. Anything that can be paid them represents the lowest figure they are worth."

SALARY SCHEDULE IN BATTLE CREEK.

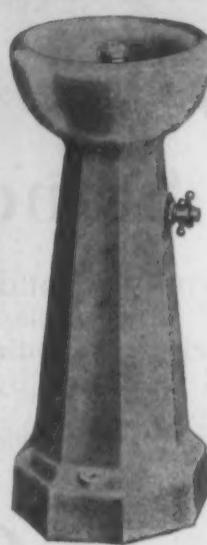
There is no guess work about it when an increase is granted to a public school teacher in Battle Creek, Michigan. By means of a simple, but effective, system of percentage-grading, members of the board of education have at their immediate disposal all essential information regarding every teacher in the city schools. At a moment's notice they can determine the value of

USE 20th CENTURY Drinking Fountains

Strictly Sanitary
Durably Constructed



"20th Century" bubbler heads are made with single hole as shown above, or with five holes as shown below, and with removable white porcelain or German silver top, easily adjusted.



The "20th Century" bubbling fountain always provides a clean, refreshing, healthful drink and prevents the spread of diseases. They are a positive necessity in every school. Twenty-seven states and most cities prohibit the use of the drinking cup, because they are unsanitary and positively dangerous.

We can furnish practically any style of bubbler you might need; the largest line on the American market.

We can fill your orders at once, and every "20th Century" is guaranteed against defective workmanship or material.

Send for our catalog and lowest prices.



TWENTIETH CENTURY BRASS WORKS
BELLEVILLE, ILL.

any teacher to the system, and, without the customary red tape and investigation, can act accordingly.

The system of grading employed in Battle Creek is an original one. It has been worked out during the past fifteen years by Superintendent of Schools W. G. Coburn. Other cities have developed somewhat similar systems. In fact almost every community, where any number of teachers are employed, has some more or less satisfactory method of keeping tab on their work. But the fame of the Battle Creek method seems to have spread and Superintendent Coburn has received numerous letters of late from the superintendents of other cities asking for details regarding it.

The system of grading is based on the reports of the principals of the various schools to the superintendent. In establishing the percentage ratings of the teachers three things are taken into consideration: personal efficiency, dynamic efficiency, and social efficiency, each of which has its relative percentage value.

Personal efficiency covers the following qualifications, for each of which a certain percentage is given: initiative and executive ability; tact and discretion; optimism, animation and enthusiasm; self control; promptness and accuracy; loyalty and willingness to co-operate with associates and supervisors; responsibility.

Dynamic efficiency covers: professional preparation, including culture and academic and professional training; instructional skill, including preparation for daily work, methods of teaching, power of holding attention, assignment of lessons, and results of teaching; governmental and directive skill; professional industry and spirit.

Social efficiency covers: interest and cooperation in social activities, and personality.

And now regarding the grading of the teachers. Those with percentages of from 95 to 100 are classed as "superior"; 81 to 94, "strong"; 71 to 80, "good"; 61 to 70, "fair"; below 60, "poor."

The system has a double advantage. Not only does it furnish an accurate and concise record of the work of the teachers, but it spurs them on to greater efforts in increasing efficiency. If a teacher is in the "superior" class her every effort

is centered on remaining there. If she has a lower classification she strives to rise. The system not only records but actually creates efficiency, and its value to the public schools of Battle Creek is inestimable.

The Battle Creek school board has just added \$100 to the salary of every teacher on the pay roll. In addition the members have announced that a \$50 bonus will be given to every teacher at the close of the present school year. The action followed an investigation into the high cost of living, in which prices for housing and commodities in Battle Creek were compared with those in other cities of the same size and rating. It was found that the complaints which had been made by many of the teachers were well founded, and that due to the presence of Camp Custer, the cost of living in Battle Creek was higher than in any other city investigated. Increases in pay to meet the emergency condition, were decided on as the only logical and fair solution.

Checks for \$60 covering the back pay for the first six months of the school year have already been presented to the teachers. The remaining \$40 will be paid to each at the rate of \$10 a month with the regular salary checks. The \$50 bonus awards come as parting gifts with the final checks in June.

TEACHERS' SALARY NOTES

Portland, Me. The board has adopted a complete salary schedule for grade and high school teachers. Teachers without experience are required to teach one year as substitutes before they are appointed to regular teaching positions. Elementary and kindergarten teachers, except half-time teachers, who have taught successfully at least one year, or who have had a year's experience elsewhere, will be given a minimum of \$500, with increases of \$100 up to a maximum of \$900. After ten years' service any teacher may be given the final maximum of \$1,000. Teachers who formerly received \$400 a year have been raised to \$600.

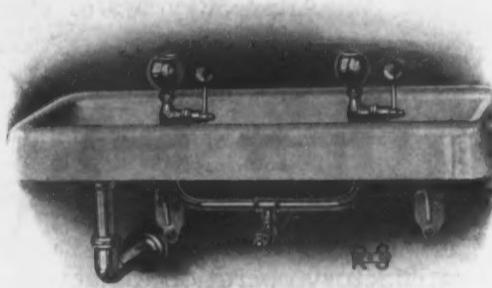
Ely, Minn. The minimum salary of grade teachers, with normal training and two years' experience has been fixed at \$100 per month. High school teachers will receive \$120 per month.

Keep the Drinking Water Pure

Safeguard the health of your children by supplying them with pure clean water and make it easy to drink without contamination.

Install Rundle-Spence Bubblers

Endorsed by superintendents and school architects and used in schools in all parts of the country.



Send for our new catalog, so you will have it handy when you are ready to order.

Rundle-Spence bubblers are neat in appearance, perfect in construction, durable, elaborate enough for the most elaborate building and economical enough for the simplest structure. We have a variety of bubblers at different prices to select from.

A post card will bring our latest catalog by return mail.

RUNDLE-SPENCE MFG. COMPANY

52 Second Street

Milwaukee, Wis.

Regular increases of \$5 per month for each year of successful service has been adopted as a fixed policy.

Ludington, Mich. The board has granted annual increases of \$50 to \$100 to the grade teachers and has placed the maximum at \$900.

Beloit, Wis. The board has adopted a minimum of \$60 to \$70 and a maximum of \$80 to \$90 per month for grade teachers.

Green Bay, Wis. The board has granted increases of 13.4 per cent to teachers. The increases average \$150 a year for principals and \$100 for teachers.

Minneapolis, Minn. The Teachers' League has taken a decided stand against the merit system whereby salary increases are varied according as teachers are marked on their teaching by principals and superintendent. The teachers have intimated that they will accept nothing short of automatic increases for the teaching staff.

Mankato, Minn. The board has adopted a minimum of \$80 and a maximum of \$110 for grade teachers and junior high school teachers. Senior high school teachers will begin at \$90 and will be given increases of \$5 per month until a maximum of \$120 a month is reached.

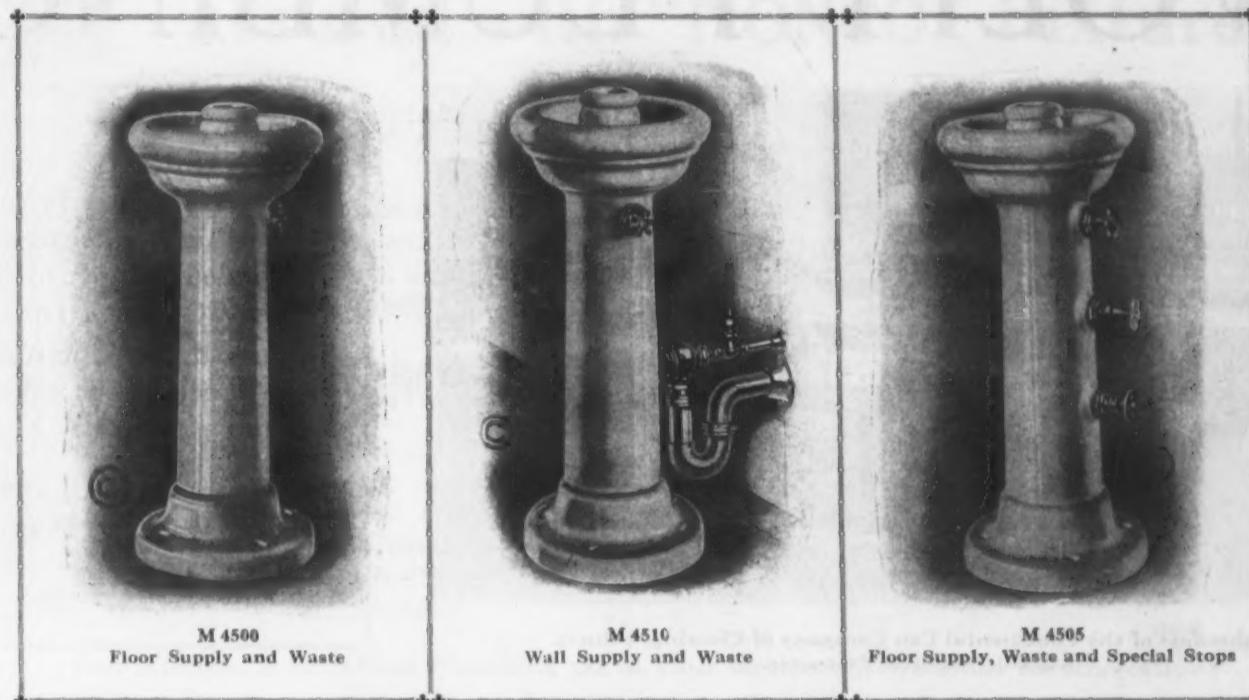
Muskegon, Mich. The board has fixed a minimum of \$650 for grade teachers with more than a year's experience and a maximum of \$1,100. In the high school, men and women teachers have been placed on a level. Beginning salaries are fixed at \$800 and maximum at \$1,600.

Decatur, Ill. Increases of \$50 a year have been given to all teachers, with a promise of further increases in the near future. The minimum is now \$600 and the maximum \$825.

Manitowoc, Wis. The board has granted a bonus of \$100 each to the teachers, to be paid at the end of the school year.

Fort Wayne, Ind. The board has approved the recommendation of Supt. Himmelick that the salaries of the grade teachers be increased in accordance with living costs. The schedule provides that teachers shall be paid \$700 the first year, \$800 the second year, \$950 the third year, \$1,100 the fourth year, \$1,200 the fifth year, \$1,300 the sixth year, and \$1,400 the seventh year.

(Continued on Page 75)



The Most Sanitary Drinking Fountain Made

Because it is germ proof, no metal can touch the lips, no earthenware can be taken into the mouth—no sharp edges.

Over 500 of these fountains have been installed on the streets of Chicago. Used by many big concerns, among them—Armour & Co., General Vehicle, Sears, Roebuck & Co., General Electric, Baker Vawter and many others. Installed in America's most representative schools. Hundreds of letters attest their serviceability, durability and superiority.

Especially recommended wherever children are because there

are no loose parts. It is the one safe, sanitary fountain and like all

CLOW

appliances it represents the best that human skill and ingenuity has been able to devise.

Built to Do Away With Trouble—

this fountain is giving complete satisfaction wherever it is in use. Orders are executed promptly—large stocks insure quick service. Write for catalog of Clow Drinking Fountains—address

JAMES B. CLOW & SONS

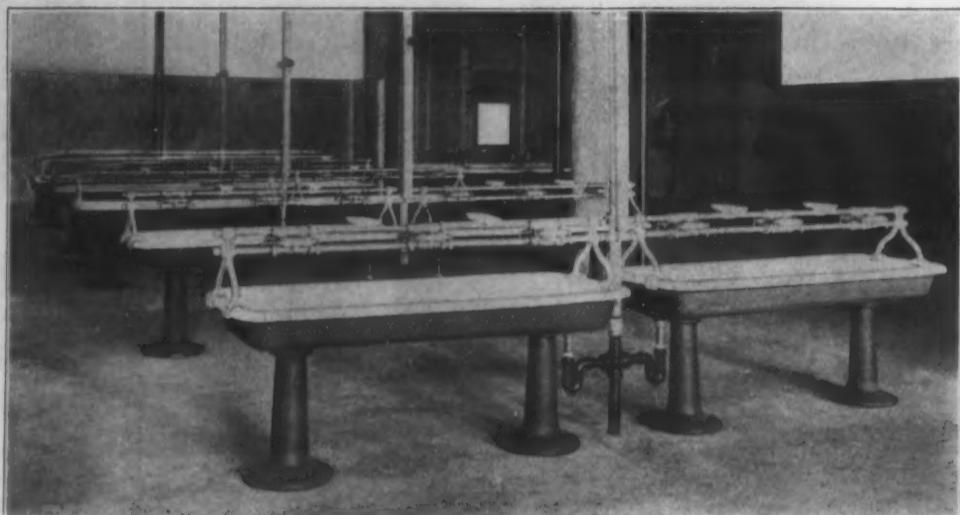
534-546 So. Franklin Street

:

Chicago, Ill.



“BIG BUSINESS” BUYS WOLFF PLUMBING



Washrooms of the Continental Can Company of Clearing, Illinois.
J. J. Daly, Plumbing Contractor.

WHEREVER long life, constant service and high efficiency are demanded of plumbing, there **WOLFF** Products command the interest of owner, architect and contractor.

For installations of any size specify **WOLFF** Plumbing and be safe.

L. WOLFF MANUFACTURING COMPANY

General Offices 255 N. Hoyne Ave., Showrooms, 111 N. Dearborn St.,
Chicago, Illinois



WITH ordinary fabric curtains, it's impossible to regulate the light properly. Not so, however with Aerolux Ventilating Window Shades. Soft, diffused light enters between the linwood splints. So does plenty of fresh air. Yet the glare and heat of the sun are shut out.

Why not have the advantages of these better shades in your school? Proper lighting—proper ventilation. And because Aerolux Shades last longer they are cheapest in the long run. Hang straight. Easily cleaned. Fine, smooth finish. Choice of several beautiful colors to match the woodwork. Efficiency and beauty combined.

Write for full information and catalog—today.

THE AEROSHADE CO., 980 Oakland Ave., Waukesha, Wis.

AEROLUX
VENTILATING REG. U. S. PAT. OFF.
WINDOWSHADES



HIGH SCHOOL, NEW YORK MILLS, N. Y.
Walter G. Frank, Architect, Utica, N. Y.

PEERLESS —Without a peer— —Without an equal.

We lead—let those who care to, follow.

EVERY progressive step in the science of Unit Heating and Ventilating has been made by the Peerless Unit Ventilation Co., Inc.

Extravagant claims read well—but, the proof is the experience of those who pay the fuel and operating costs. Write to any school where the PEERLESS UNIT SYSTEM is installed and get the benefit of their knowledge of its results. A list supplied on request. Catalog also, for the asking.

The features that make the PEERLESS UNIT SYSTEM without an equal are embodied *only* in the Heating and Ventilating Units manufactured by us.

We stand squarely behind every installation with a cast-iron guarantee.

We strive to please, and we *do* satisfy.

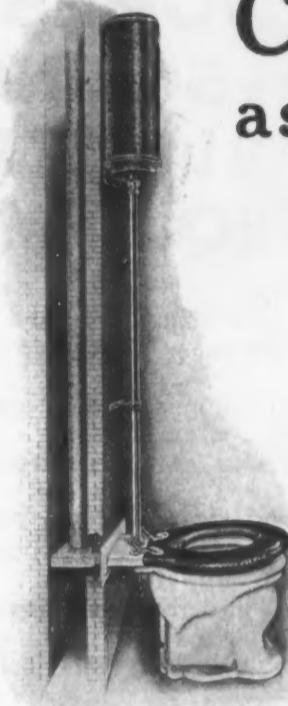
Our engineering staff is at your disposal.

PEERLESS UNIT VENTILATION CO., Inc.

521-523 West 23rd Street, New York, N. Y.



Cleanliness and Sanitation assured with "NONCO" Fixtures



The health of the child is safeguarded where "Nonco" Plumbing Fixtures are installed. This is of prime importance, but at the same time "Nonco" fixtures are built to withstand hard usage. These fixtures are of correct design, and the mechanical operation is perfect.

"NONCO" PLUMBING FIXTURES

are the result of over half a century of experience in manufacturing plumbing fixtures for schools. Our broad, liberal policy and honestly made products have served to establish the superiority of "Nonco" products for school installation.



596-N

Our Specialists on School Plumbing are at your service. Write today for suggestions

N. O. NELSON MFG. CO. EDWARDSVILLE, ILLINOIS
SAINT LOUIS, MISSOURI

BRANCH OFFICES and
SELLING AGENCIES

LOS ANGELES, CAL.
MEMPHIS, TENN.
DAVENPORT, IA.

PUEBLO, COLO.
HOUSTON, TEXAS
LITTLE ROCK, ARK.

SALT LAKE CITY, UTAH
BIRMINGHAM, ALABAMA



(Concluded from Page 72)

Ashland, Wis. The board has increased the salaries of teachers six per cent. It was pointed out that teachers who had gone into military service had left the service for good because of the salary question.

Toledo, O. Teachers and principals of grade and high schools have been given increases of \$200, since January, 1919. Instructors who have served twenty years will receive \$100 extra, while those with thirty or more years' experience receive an extra bonus of \$200.

Salina, Kans. Teachers have been given increases of \$20 per month.

Portland, Ore. Beginning April first, all teachers were given a monthly bonus of \$10. About \$100,000 will be distributed in salaries to the teachers.

LeMars, Ia. The board has adopted a new salary schedule providing for increases of \$20 per month. Grade teachers will begin at a salary of \$90 and high school teachers will start at \$100 per month.

The state and the local school districts of Pennsylvania are expected to agree on a fifty-fifty plan of increasing salaries, thru which the state and the local districts will share the burden with the appropriation of \$3,000,000 each. The bill which is being prepared for adoption by the legislature, will provide that districts failing to cooperate will be denied a right to share in the state appropriation. It will also include an amendment providing that the minimum salary for holders of professional certificates shall be \$70 per month.

In order to make it possible for the Pittsburgh and Philadelphia school boards to cooperate in the salary increases, it will be necessary to pass the Scott bill, increasing the maximum tax levy in these districts from six to eight mills.

New York, N. Y. The board has been asked to adopt a plan providing for the employment of teachers on an overtime basis, at the rate of \$1.50 an hour. The plan provides that teachers of morning classes shall take afternoon classes also and that they shall be paid for the time so spent. The plan overcomes part-time conditions due to the shortage of teachers and insures that each child will receive instruction.

Yakima, Wash. The board has prepared a salary schedule which will give teachers a ten per cent increase. The minimum for grade teachers has been fixed at \$900 and the maximum at \$1,100.

The Iowa Senate has passed the Fellows bill amending the law relating to minimum salaries for teachers. The present law bases the salary on the grade of certificate held by the teacher without regard to experience or qualifications. The Fellows bill provides that a teacher who has taken a four-year college course and received a degree, and is the holder of a state certificate, shall be paid a minimum of \$100 and after two years' experience, may be given \$120.

The teacher, who has taken a two-year course in the state normal school, and has a state certificate, will receive a minimum wage of \$80 to be increased to \$100 after two years' successful experience as a teacher.

The teacher, who has taken a normal course in a normal training high school and has had less than one year's experience as a teacher will receive a minimum wage of \$65.

The same teacher, after one year's successful experience, and a teacher holding a first grade uniform county certificate, will receive a minimum wage of \$75, which will be increased to \$80 after two years' successful experience.

A teacher with a second grade uniform county certificate is to receive \$60 until one year's successful experience, when the minimum will be \$65. A minimum wage of \$50 is provided for the teacher with a third grade certificate.

Teachers are entitled to these minimum wages when their certificates are endorsed by the county superintendent, the endorsement to be made when the certificate and satisfactory proof of experience are filed with the county superintendent.

TEACHERS AND ADMINISTRATION.

The State Board of Education of Georgia has completed plans for the establishment of teacher-training courses in the high schools of the state. The courses are intended to provide the requisite training for high school students who desire to become teachers. It is estimated that four-fifths of the state's supply of teachers come from the high schools without special normal or college training.

The Philadelphia board of education has approved the plan to merge the local teachers' retirement fund with the state retirement fund. The cost of entrance into the state system is very much less than was originally estimated and the money invested by teachers may be withdrawn at four per cent, in case of withdrawal from the service.

Under the merger, teachers upon retirement will receive one-eighthieth of the average salary for the last ten years, multiplied by the number of years of service. Disability benefits are permitted after ten years of service. The annuity will be based on one-ninetieth of the average salary for the last ten years, multiplied by the number of years of service. Teachers may retire at 62 years and at 70 retirement is compulsory.

A six weeks' summer course for teachers at the Municipal University is planned by Asst. Supt. E. P. Wiles of Akron, O. The course covers six lectures, at fifty cents each, and is so arranged that students may work during the time they are in attendance at the summer school.

The teachers of Benton Harbor, Mich., have refused to sign contracts for next year at the present salary of \$75 per month. A minimum of \$80 has been requested.

WORTH CONSIDERING.

An Ohio newspaper prints, under the head of "School Board Truancy" a brief comment on a local situation:

"How about truancy on the part of members of our wonderful school board?

"With important work for the board—the selection of a new principal for Waite School—one member is in Florida, another in California, and a third one is sick. That leaves only two members on the job, and it takes three to make a quorum."

"Perhaps it might be a good idea to pay a little more attention to our school board and how seriously its various members take their responsibilities."

"Won't somebody please page the truant officer?"

Have citizens a right to accept a membership on so important a body as the school board, if they do not expect to attend to their duties regularly during their term of office? We think not.

The 5-Year Sweeper Guaranteed—

- 5** Years in a Two Class-Room School or in a Ten-Room House.
- 2** Years in a Four Class-Room School or in a 30x60 Foot Store.
- 1** Year in a Six Class-Room School

Fill With Cheap
Sweeping Fluid



Being
"Self-Moistened,"
this Brush
needs no
"FLOOR POWDER"
nor
"FLOOR OIL,"
which saves
\$20 to \$30
per brush.

A satisfactory allowance on a new brush will be made if a brush you have paid for fails to fulfill all claims.

It wears longer than two to four ordinary brushes, longer than 24 to 36 corn brooms.

30 Days' Free Trial Express Prepaid

Try it now before placing your order for the year. If you don't like it, return it at our expense.

MILWAUKEE DUSTLESS BRUSH CO.
100 TWENTY-SECOND ST. MILWAUKEE, WISCONSIN



The school board of Louisville, Ky., has asked for a maximum school levy of fifty cents in the 1920 tax. The increase is necessary because of the reduced revenue from the state and the increases in teachers' salaries. The estimated revenue for 1919 from city taxes, including current taxes and back taxes, is somewhat less than \$900,000.

A committee of three from the regular teaching staff of the Cincinnati schools has been appointed to act as housekeepers for the school buildings. The committee is under the direction of Supt. R. J. Condon and acts as supervisor of school buildings and grounds.

A Bureau of Plant Operation has been created as a part of the Board of Education of New York City. The bureau will assume some of the duties formerly exercised by the Bureau of School Buildings, the Bureau of Supplies and the Supervisor of Janitors. It will recommend designs for heating and ventilating plants, keep plants in repair, instruct janitors in the operation of school plants and supervise the work of cleaning and maintaining the sanitary upkeep of the buildings. Mr. Robert W. Rodman, formerly sanitary assistant to the superintendent of buildings, has been appointed head of the bureau.

The new bureau will concentrate responsibility and authority and will coordinate the related phases of the design, installation and repair of heating and ventilating plants, the operation of the same, and the fuel supply. It will make more effective the work of the janitors who will receive

more technical direction and instruction.

The school board of Ogden, Utah, recognizing the imperative need for new school buildings, has begun the formulation of a building program which is based upon a careful study of the development of the city schools and the growth over a period of years and which is to include the erection of two Junior High Schools.

The lack of a proper building program and an increase in school population in the past ten years has led to a serious condition in the school system. Practically all the buildings are old and insanitary and during the last year the building activities included three new buildings and renovation of five others. A bond issue of \$500,000 to cover the expense of erecting these structures was submitted to the voters on April 16th for ratification.

Forty-one janitors of school buildings at Milwaukee, Wis., recently entered upon a course in Heating and Ventilation of Public Buildings. The course was conducted by the University of Wisconsin Extension Division and offered an opportunity for obtaining scientific information on janitorial duties.

A school budget of \$80,000 was recently unanimously voted by the town of Marblehead, Mass. This amount is an increase of 80 per cent over what it was two years ago.

Ventnor City, N. J. The school district will erect an eight-room addition to the 14-room building already in use. The original building was erected in 1910 and consisted of eight rooms.

Cleveland, O. The school board has discontinued its war-time rule forbidding the use of school auditoriums on Saturday nights and Sundays. The purpose of the rule was to save heat and light for war industries.

The school board of Houston, Tex., is facing a serious shortage in schoolroom accommodations. The board is earnestly seeking to remedy the situation and estimates that three new ward buildings and additions to several existing structures are necessary to comfortably house the children.

The high cost of materials and labor has resulted in a decision to postpone the erection of



HUGHES Electric Hot Plates, Portable Ovens and Ranges are the last word in modern cooking equipment.

Just a turn of a switch and you immediately have a clean, easily controlled heat.

No lighting of matches, with its attendant danger, no flames, fumes or dirt.

HUGHES DOMESTIC SCIENCE EQUIPMENT—now installed in several hundred schools and colleges—is giving wonderful results and entire satisfaction.

Equip your schools with these modern cooking appliances and give your pupils the advantage of not only learning modern recipes, but modern methods of cooking them, as well.

HUGHES
DIVISION

EDISON ELECTRIC APPLIANCE CO. INC.

ECONOMICAL
SAFE
SANITARY

CHICAGO

NEW YORK ONTARIO, CAL. ATLANTA

SEND FOR
ILLUSTRATED
LITERATURE

the new high school at Wakefield, Mass. The plans call for a three-story building with auditorium, gymnasium and library and the lowest bid was \$686,800.

The school board of Toledo has issued a second call for bids on \$1,000,000 worth of school bonds, with interest at 5 and 5 1/4 per cent. The first call failed to bring returns.

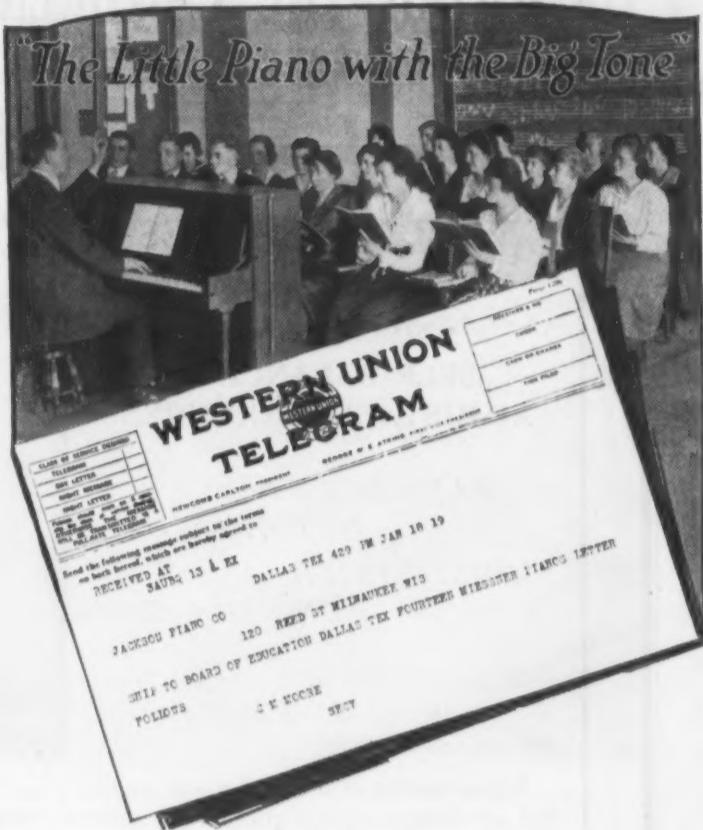
Denver, Colo. A bond election is to be held in the near future to decide the question of issuing bonds to the amount of \$8,000,000. The bonds will provide for the erection of new senior high school buildings at a cost of \$1,000,000; junior high schools at \$75,000 to \$250,000, and elementary schools ranging from \$10,000 for the smaller buildings to \$100,000 for the large structures. It is estimated that the city is at least seven thousand pupils behind in its accommodations for the children. About 2,500 children can attend classes only half days, 638 go to school in portables and 779 are enrolled in rooms too small for the purpose. About 4,030 children are enrolled in basement rooms.

Cleveland, O. A new system of budgeting has been inaugurated in the business department to overcome inequalities of apportionments.

Minneapolis, Minn. Charges of discrimination and of "spying" by the business department of the schools against union school janitors have been denied by the former. An investigation of eighteen demotions made in the force during the past two years shows that seven of the demoted men were non-union and of the remainder, only three union men suffered demotion with loss of salary. The matter of spying was explained as merely investigations into variations of the standard allotment of manpower per building unit. This was made necessary because of special difficulties in certain buildings.

A recent report given to the Cleveland board by Director F. G. Hogan reveals that the city has some of the best and many of the worst lighted schools of any city in the country. Of 121 buildings, 36 are completely equipped with fixtures for semi-indirect lighting. Twenty-five buildings are fitted with old-style lighting fixtures and 538 classrooms in 64 buildings have no artificial light-

(Concluded on Page 79)



Fifteen Miessners for the Schools in Dallas

First they ordered one and tried it out. The result was the above telegram which came a week later. Fifteen Miessners in all! And that's only one instance of how big this remarkable little piano has "made good."

The Miessner Piano An Innovation in Piano Building

FROM east, west, north and south, orders—and congratulations—pour in, in recognition of the wonderful merits of this "Little Piano With the Big Tone." For within this small, artistically proportioned case, standing only 3 feet, 7 inches high, teachers and directors of music have discovered a volume and purity of tone almost inconceivable.

When the first chord is struck it fairly amazes them. They can hardly believe that such a full, sweet, resonant tone can come from such a small piano. And that tone *stays* even through hard usage—the Miessner method of construction insures excellent tone-keeping quality.

Ideal for Schools

Teachers of music are loud in their praise of the little Miessner. They sit at the piano, look right over the top and direct the singing. Students like it, too. They take more interest in the music period—and they learn more.

Write today for Illustrated 16-page Catalog and details of our selling plan

Factory-to-Schoolroom Selling Plan

Our plan puts this piano in your school at the lowest possible cost. No dealer's profits to pay—no costly selling plan. We ship direct to you from factory, at half the price of the usual sized upright. Ten days' free trial before you actually buy it or pay a cent of its cost.

THE JACKSON PIANO CO.
122 REED STREET : MILWAUKEE, WISCONSIN
CHICAGO OFFICE: 418 FINE ARTS BUILDING



Correct Shades for Schools

TWO things to consider—the quality of the shade, and how it should be placed.

Oswego Tinted Cambric or Triplex Opaque on the celebrated Hartshorn Rollers form an ideal combination—a combination in use in thousands of schools where Superintendents and Teachers have had proper regard for ventilation and care of the children's eyes.

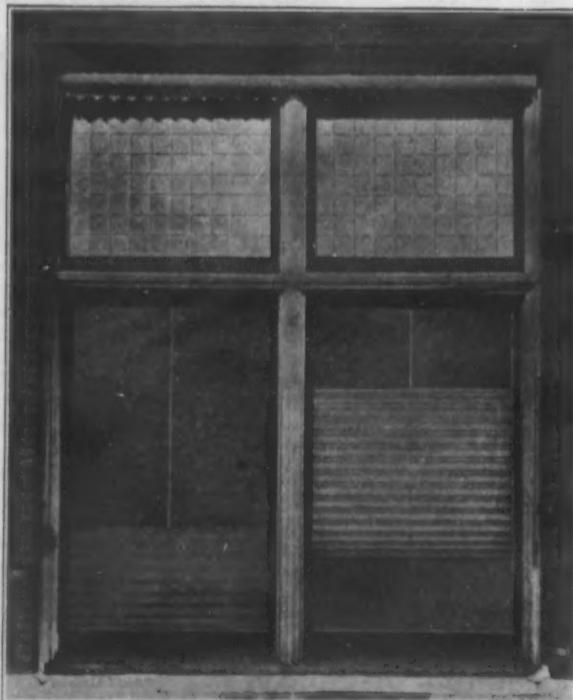
Stewart Hartshorn

Send for Special
Sample Book

Stewart Hartshorn Co. Oswego Shade Cloth Co.

General Office, 250 Fifth Ave., New York City
Chicago Office, 332 So. Michigan Ave., Chicago

HERE'S A REAL ADJUSTABLE SHADE



THIS is something entirely new and in a class of its own. Shuts off the dazzling rays of the sun and at the same time admits plenty of daylight.

One Superintendent says, "Perennial Shades seem to be the most efficient and practical shades that I have ever seen."

The United States Government has recently purchased over 1000 Perennial Shades for use in the Recuperation Camp at Denver.

PERENNIAL SHADE CO.
FARIBAULT — MINNESOTA

WATCH THE CHILDREN'S EYES

EYE STRAIN RELIEVED AND CERTAINLY AVOIDED
IF YOUR SCHOOLROOMS ARE EQUIPPED WITH

E L T

WINDOW SHADES

(superior plied yarn fabric)

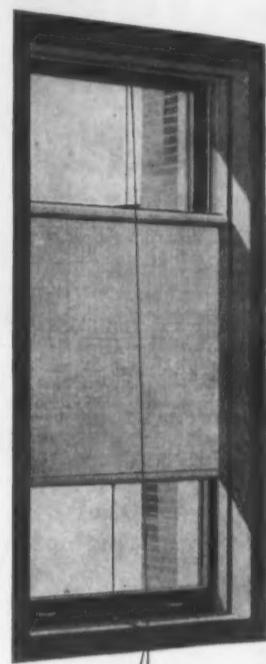
WITH OR WITHOUT

SELF BALANCING
ADJUSTABLE FIXTURES

**TRANSLUCENT—
NOT OPAQUE
DULL FINISH—
NO GLARE**

If your school supply house does not handle our E L T Shades, write for our folder.

Upon receipt of a set of plans, or a list of window sizes, quotations will be furnished at once.



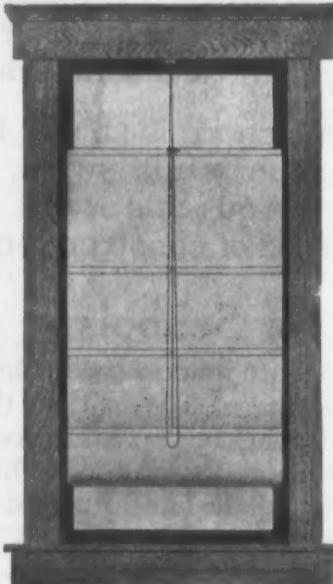
**E. L. T.
SHADE MATERIAL
Mounted on
Self-Balancing Adjustable
Shade Fixtures**

THE ORIGINAL

**WALGER
AWNING COMPANY**
561 W. MONROE ST., CHICAGO

ESTABLISHED
1905

Draper's Adjustable Window Shades Meet All School Requirements



That's why hundreds of schools thruout the country have adopted this shade.

Draper Shades are easily adjusted to suit the conditions in the class room as they exist.

Draper Shades shut out the glaring rays of the sun, protecting the eyes of the teacher and pupils.

Draper Shades allow sufficient light and fresh air to come into the class room.

Draper Shades are made of durable cotton duck—are neat in appearance and are mechanically correct.

EQUIP YOUR SCHOOLS WITH Draper's Adjustable Window Shades

Write today stating number and size of windows in each room and we will be glad to submit prices

LUTHER O. DRAPER SHADE CO.
SPICE LAND, INDIANA

BEERY SYSTEM VENTILATION

"Diffuses Fresh Air Everywhere"

Provides a continual volume of pure air to all pupils in the classroom, improving their health and efficiency.



ASSEMBLY HALL, LINCOLN SCHOOL, ROCKFORD, ILL.
Note where pure air is diffused from the ceiling.

Before you have plans made for your new school ask us to submit tangible facts showing improved health and efficiency results produced by this system of ventilation. The success of the Beery System Ventilation justifies you in holding up your present construction until you can obtain complete details.

BEERY ENGINEERING COMPANY

308 MEAD BUILDING
ROCKFORD, ILLINOIS

Announcement

The sensational success of the Beery System Ventilation for five years in the schools of Rockford, Ill., has resulted in the formation of the "Beery Engineering Co.," so that this system of ventilation is now available for all schools.

The Beery Engineering Co. offers an expert consulting service to school boards and architects on all the details of ventilation.

(Concluded from Page 76)
ing facilities. It is estimated that the cost of installing proper fixtures in all classrooms will reach \$258,595.

Detroit, Mich. The city council has approved the school budget at \$9,570,478, a reduction of \$7,000,000 from the original as prepared by the board. The reductions were made chiefly in the matters of school buildings and sites, and appropriations were made for buildings for which sites had been secured.

The city of Houston, Tex., in connection with the erection of a new Central High School, plans to design and construct the structure in keeping with a definite program for city planning. The buildings which have been erected in the past form the beginning of a convenient grouping of public buildings and the adoption of a city building plan at the present time would make for economy of cost and with slight inconvenience to public functions.

A STUDY OF A TYPICAL CITY OF THE SOUTH IN RESPECT TO SCHOOL MAINTENANCE.

(Concluded from Page 35)

they said, speaking of the school situation of that year:

Money is needed for the support of our public schools, and this can only be obtained by general taxation. Every increase of taxation is looked upon with suspicion by the citizens, but this can be overcome by fostering a greater, wider, and deeper interest in the public schools, by bringing the citizens and the patrons into close contact with the schools.

In discussing the responsibility of boards of education in this matter of exercising leadership in securing funds for school maintenance, Chancellor¹ makes a comment that is worth repeating. He says: If boards of education would spend half their time in work to get

¹Chancellor, W. E. Our Schools, Their Administration and Supervision. Heath & Co., 1900, p. 340.

funds, they would do better for education than they now do. They prefer the easier labor of trying to reduce expenditures after others have given them what money they choose. It is symptomatic of incompetence for a board to worry and to wrangle over petty sums rather than to go out and raise sufficient means to carry on public education creditably. The work of educating public sentiment to reasonable school appropriations should be carried on all thru the year by boards of education.

A STUDY OF SCHOOL FINANCES AND UNIT COSTS.

(Concluded from Page 40)

stating that during the year 1916-17 the expense was four per cent while in each of the years prior to that, seven per cent was spent. Attention is called to the fact that such expenditures must be made in the future if the plant is to be kept in physical condition, in keeping with modern ideas of comfort, cleanliness and beauty.

Mr. Scholz adds as a final comparison the running expenses of all schools in the city. Table No. 6.

Space will hardly permit us to include the second section of the report which is devoted entirely to a discussion of the unit cost of conducting the schools on the basis of the pupils in attendance.

In summing up, Mr. Scholz suggests the following conclusions:

(1) That the budget is well-proportioned, and places the emphasis rightly on the teaching rather than the non-teaching phase of school activities.

(2) That the main items of cost are in line with those of an ideal budget, as well as with the reasonable limits found by Dr. Uplegraff to

exist in twenty cities of similar size to San Antonio.

(3) That the board is higher than the average in the allowance for teachers' salaries, medium in supervision costs, and low in expenses for textbooks and supplies, fuel, and upkeep of buildings, while janitors' wages are in line with the standard.

(4) That the per-pupil cost in all types of schools taken together has increased \$4 since the pre-war period, and the high school costs have grown considerably since the modernizing of the high school system.

(5) That the people of this city are taxing themselves about as generously as the other large cities of the state, but not as liberally as some of the progressive cities of the country at large.

THE INTERMEDIATE SCHOOLS OF JACKSON, MICHIGAN.

(Concluded from Page 52)

building materials. There was a further marked increase in prices later, however, so that the cost of the completed buildings has little significance today.

The West school as it stands is 270 feet by 140 feet over all. The main corridors are fourteen feet wide, the transverse corridors eleven feet, and are covered with cork linoleum. Cost of building:

General Contract, \$240,870.

Heating and Ventilating, \$35,404.

Plumbing, \$19,498.

Electric Wiring and Fixtures, \$18,488.

Miscellaneous, including building hardware, architect's fees, etc., \$21,371.

Total, without furniture and equipment, \$335,631.

This is approximately 19½ cents a cubic foot.

"600" PROJECTOR



The "Motiograph"

Over 600 purchased by the Y. M. C. A. and schools in the last year makes it the leader. Its ease of operation—perfect projection—and non-wear qualities puts it in a class by itself.

(Will take all standard size films.)

THE ENTERPRISE OPTICAL MFG. COMPANY

564 W. RANDOLPH ST.

CHICAGO, ILL.



From One Classroom Into the Other--

is the daily course of the DeVry in America's foremost educational institutions.

The country's leading educators, realizing and appreciating the power and scope of motion pictures for educational purposes, and desiring unlimited use of this great pedagogical aid, have—after careful investigation—adopted the DeVry Portable Motion Picture Projector as being ideal for the purpose.

The DeVry is entirely self-contained,—takes standard size reels and film,—attaches to the ordinary light socket, and projects perfect pictures at the touch of a button.

Write today for a complete descriptive catalog telling how you too may benefit by its use. Address

The DeVry Corporation

1262 Marianna Street

Chicago, Ill.

The furniture and equipment, which are not yet completely installed, will cost between \$35,000 and \$40,000. Architect, Leonard H. Field, Jr., Jackson, Michigan.

The East school is 220 feet long by 128 feet wide, and while smaller than the West school and distinctive in architectural and other features, it contains the same essential elements and is planned for the same kinds of work.

The cost:

General contract, \$178,115.

Heating and ventilating, \$29,997.

Plumbing, \$15,608.

Electric wiring and fixtures, \$17,249.

Miscellaneous, including building hardware, architect's fees, etc., \$17,802.

Total, exclusive of furniture and equipment, \$258,071.

The furniture and equipment complete will cost between \$30,000 and \$35,000. Architect, Clarie Allen, Jackson, Michigan.

The grounds, at present representing an investment of \$82,000, are being beautified according to plans of competent landscape gardeners. The most prominent feature at the West school is the main approach, with its broad walks surrounding a beautiful rose garden. The East school is built high above the street level, and the terraced grounds are unusually interesting and attractive. Playgrounds are located at the rear of both buildings, those at the East school being particularly commodious.

RURAL SCHOOL GROUNDS.

(Concluded from Page 56)

taking care of themselves. They should also be such as bloom in spring or fall, when the school is in session. Perennial plants are excellent. Of these, day lilies, bleeding hearts, pinks, bluebells, hollyhocks, perennial phlox and hibiscus

are always useful. Nothing is better than the common wild asters and goldenrods. They will grow almost anywhere and they improve when grown in rich ground and given plenty of room, and they bloom in the fall.

Many kinds of bulbs are useful, especially as so many of them bloom very early in spring. Think of a school yard with crocuses, daffodils and tulips in it!

Annual flowers may be grown along the borders, out of the way of the playgrounds. China asters, petunias and California poppies are very attractive, and they are easy to grow. They bloom in the fall. Phlox, sweat peas, alyssum, and many others are also useful.

While the main planting should be made up of common trees or shrubs, a rare or strange plant may be introduced now and then from the nurseries, if there is any money with which to buy such things. Plant it at some conspicuous point just in front of the border, where it will show off well, be out of the way, and have some relation to the rest of the planting. Two or three purple-leaved or variegated-leaved bushes will add much spirit and verve to the place, but many of them make the place look fussy and overdone.

THE JORDAN SCHOOL.

(Concluded from Page 53)

Automatic flushing closets have been used throughout the building. The water supply is provided thru an artesian well under the school, from which the water is pumped into a one-thousand-gallon tank by an electrically driven pump. Connection is so effected that the motor cuts in when the water pressure goes down to fifty pounds and cuts out when it is up to sixty pounds.

The heating and ventilating system is of the steam blast type. The ventilation system is capable of supplying thirty cubic feet of fresh

air per minute to each classroom and of exhausting the foul air up to 85 per cent of the supply. The building is wired for electric lights and for a system of signal bells. The structure cost, complete, \$70,416, which is on a basis of \$156.48 per pupil, or \$7,824 per classroom.

The plans of the building were prepared and carried out by Architect H. Louis Goddard, assisted by Mr. S. B. Manwaring, chairman of the building committee of the Waterford school board. Mr. L. H. Bogue acted as general superintendent in charge of the construction work.

The Jennings bill providing for a minimum salary of \$900 for grade and common school teachers of Milwaukee has been passed in the Wisconsin legislature.

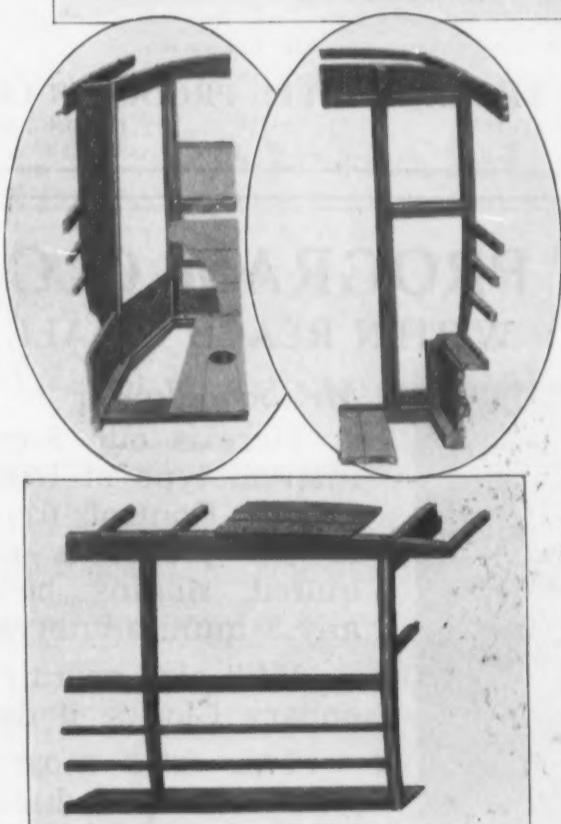
The governor of Texas has signed a bill providing for an appropriation of \$4,000,000 for the support and aid of rural schools in the state.

An amendment to the school code has been introduced in the Pennsylvania state legislature providing that school shall be kept open at least eight months in fourth-class districts.

A joint resolution has been introduced in the Pennsylvania legislature providing for the appointment of a committee of eight to investigate the public-school system and an appropriation of \$5,000 to cover the expense of the survey. It was pointed out that eighteen million dollars had been appropriated in 1917 for the support of the schools and the present requests for increases in salaries will involve an appropriation in excess of eighteen million for the next two years.

The Newman bill introduced in the Montana legislature, raises the compulsory school age to sixteen years, unless a child has completed the eighth grade.

House Bill 182, by Brandjord, raises the compulsory school term to six months and provides for the placing of five per cent of the income from all school funds whether invested or uninvested to the permanent school fund. Under the present law the income from uninvested funds is placed in the general state fund, and does not get into the school fund.



*How the Frame of the Studebaker
School Bus is Built*

All joints mortised or shiplapped and glued—screws and bolts used throughout—posts, one piece—heavy strap bolts and corner irons tie parts together.

Lower insert indicates how cross pieces in the roofs are spaced—being only 12 inches apart.

All sills and cross members are of hardwood. Small insert at top shows operation of drop sash.

"Built by Studebaker"

That is the best guarantee you want to insure correct construction when you are considering the purchase of school busses.

Your interest in protecting and providing for the safety, comfort and convenience of your school children means your selection of a wagon built by men who understand transportation requirements thoroughly.

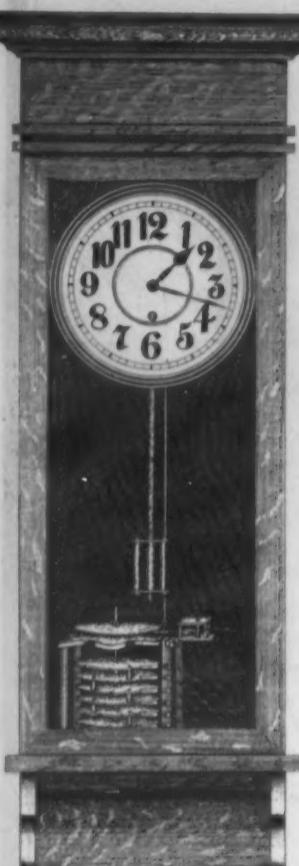
Catalog No. 1214 shows large illustrations and gives detailed views of construction. It will be sent on request. If you want our representative to meet with your board—tell us when.

Studebaker

South Bend, Indiana

Largest Manufacturers of Vehicles in the World—Established 1852

FOR positive, punctual and lasting service the *Hansen Signal System* is the best known.



It will ring any number of programs up to eight, in either the five or two one-half minute intervals on battery or transformed alternating current.

No frills and made for service only. The superior system at a reasonable price.

Simple, easy to install, easy to manage.

Write for Catalog.

Hansen Manufacturing Company
PRINCETON, IND.

SETH THOMAS

Secondary Clocks
FOR SCHOOLS

They maintain uniform time throughout the various class rooms and eliminate all the confusion and loss of time which arise from dismissing the various classes at different times.



Seth Thomas Secondary Clocks are connected with the master clock electrically and are absolutely synchronous with it at all times.

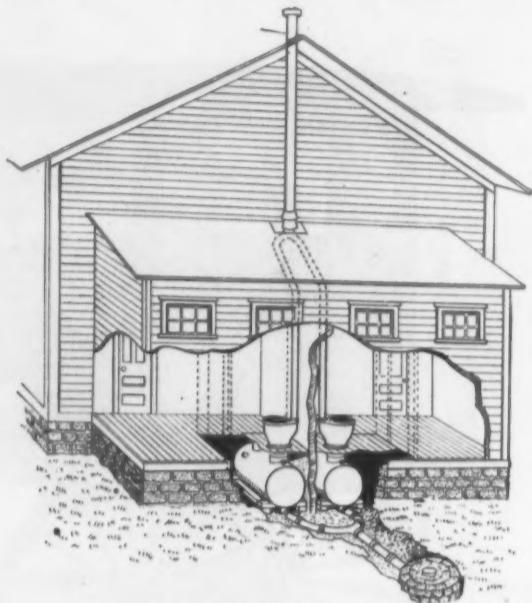
Write today for specifications and catalog describing Seth Thomas Secondary Clocks.

SETH THOMAS CLOCK CO.
Established 1813
Factories: Thomaston, Conn.
NEW YORK CHICAGO SAN FRANCISCO



THE WOLVERINE INDOOR CHEMICAL CLOSET

For Schools, Churches, Factories and Homes



WATERLESS, SANITARY, ODORLESS, CONVENIENT AND NECESSARY

The moral and sanitary problems of schools are solved instantly by installing indoor closets.

*Guaranteed satisfactory. Recommended by boards of health and education
Send for Catalog H*

THE DAIL STEEL PRODUCTS CO.

MAIN STREET

LANSING, MICHIGAN

A PROGRAM CLOCK WITHIN REACH OF ALL

Mr. Schoolman:

Here is our 5-minute interval type of Program Clock. Controls from one to six programs as required, ringing bells on any 5-minute interval.

Will also operate Secondary Clocks, if desired.

This is a most high grade clock and due to its extreme simplicity the PRICE is very MODERATE.

Let us send you our catalog and submit estimate. No obligation whatever to buy.



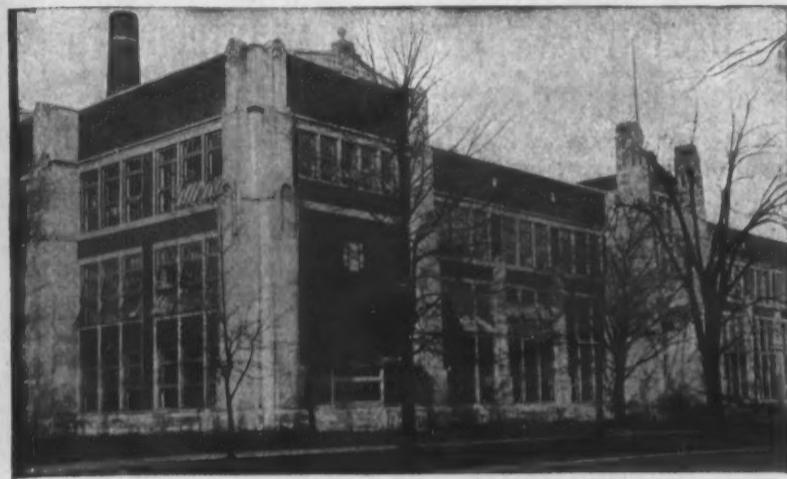
STYLE A 60 TF

OUR PRICES will not justify your being without one of these promoters of efficiency and discipline.

LANDIS ENGINEERING & MFG. CO.
WAYNESBORO, PA.

"Wilson Reverso" Windows

are the most satisfactory for schools



BLOOMINGTON HIGH SCHOOL, BLOOMINGTON, ILL.
ARTHUR L. PILLSBURY, Architect
J. L. SIMMONS CO., Builder

250 Rolled Steel Wilson Windows Used

McFARLAND-HYDE CO., 27th and Fifth Ave., Chicago.
Gentlemen:—We used your roll steel windows in the Bloomington High School building which was built here during the years 1915 and 1916.

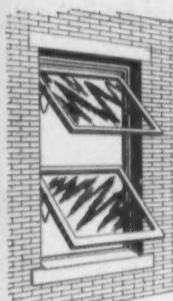
I was determined in selecting windows for this building to get a type that would prove both water tight and wind proof as far as possible, besides having other qualifications that go with metal frames and metal sash, and in addition, a window that can be easily cleaned from the inside.

I am very glad to state that neither in the preliminary test nor at any time during the use of the building since completion have we found the windows deficient in any respect as to either leakage of water or of wind. In fact they have proven more satisfactory than I even expected. I think that the weather stripping which you use accomplishes its purpose in good shape.

I have no hesitation in saying that in case we are in a position to want metal frames or sash again that I would not hesitate to use your product.

Yours truly,
A. L. PILLSBURY

"WILSON REVERSO" WINDOWS are manufactured in Galvanized Iron Underwriters' Windows, also Rolled Steel, and the hardware complete for Wood Windows.



Wilson Reverso
Patented

27th and So. Wells Sts.
CHICAGO, ILL.

MANUFACTURED BY
McFARLAND-HYDE CO.

New York Office:
1123 Broadway

NEW BOOKS

The Magee Readers—Book Four.

By Anna F. Magee. Cloth, 184 pages. Illustrated by Ethel F. B. Bains and Eugene M. Wireman. Ginn and Company, Boston.

The typical lesson and suggestions for teaching found in the reader express the author's idea of how much may be made of a short lesson. Little people greatly need to study even a short reading lesson in several ways and from several points of view. The shading in the illustrations is artistic in its softness and the drawing lessons show a special fitness.

Elements of Business.

By Parke Schoch and Murray Gross. Cloth, 216 pages; illustrated. American Book Company, New York, Chicago.

In times of peace men usually earn the home income while women administer this income. Good management in the homes of a nation makes a nation prosperous. To insure successful management these men and women should be familiar with business methods and forms. To assist householders in the best methods of buying, saving, investing, two instructors in the girls' high school of West Philadelphia have prepared this book. It embraces sections devoted to money and credit, banking, insurance, investments, correspondence and keeping personal accounts. Supplementary questions bring essential points out sharply.

First Book in Spanish.

By J. P. Wickersham Crawford. Cloth, 399 pages. Price, \$1.20. Macmillan Company, New York.

The plan of this book shows the trend of public opinion from both the standpoint of education

and commercial intercourse. Emphasis is laid upon gaining a certain degree of power in speaking a foreign language, in order to read or write in that language. The present great possibilities of trade with the Latin states of South America make a practical knowledge of Spanish of prime importance so this first book in Spanish is timely.

The statement is modestly made that this book is not a reference grammar. However, it is a good working grammar which is better for practical purposes. Abundant and varied exercises give ample material for oral and written work and accidentally tell not a little of the Latin-American states.

Science of Plant Life.

By Edgar Nelson Transeau. Cloth; illustrated; 1x plus 336 pages. Price, \$1.48. World Book Company, Yonkers-On-Hudson, New York.

"The old order changeth and giveth place to new." This reviewer studied botany when classifying and naming plants was the aim. This was fortunately done under a progressive teacher who invariably associated a plant with its habitat.

The belief of this author is that work in botany should serve as a basis for agriculture, horticulture, forestry. Thus leaves, stems, roots are studied with reference to the effect of environment upon them and the uses made of the food they manufacture and finally the formation of seeds and fruits. Technical botanical terms are freely used and carefully explained, but they are used as tools, as means to an end. Chapter on algae, bacteria, and fungi, mosses, ferns and their allies, evolution of plants, are distinctly up-to-date. Almost all the chapters are preceded by suggestions for laboratory and field work and practical problems.

A clear style, the 1914 illustrations, the able treatment of the subject would seem to insure a successful future to this book.

Father Thrift and His Animal Friends.

By Joseph C. Sindelar. Illustrated by Helen G. Hodge. Cloth, 128 pages. Price, 50 cents. Beckley-Cardy Company, Chicago.

"Once upon a time, in a quaint old town, there lived a queer little old man. His name was Thrift—Father Thrift people called him." Thru

Fire Protection for Schools

improves fire fighting efficiency and prevents loss of life. Every Teacher and Fire Chief should urge installation of



Blaze Extinguishers

in every home, school, church, factory and office building. **Blaze Extinguishers** can be handled by women and children successfully.

Blaze Extinguishers

are the only positive protection against fire. They are perfect in construction, positive in action, and the most efficient fire extinguishers in the world. Require no recharging until used. Guaranteed for 25 years.

INSTANTANEOUS IN ACTION RUST PROOF NO HOSE

Read Hudson Maxim's Letter

I have carefully examined the Blaze Extinguisher, and it is my opinion that it is the best fire extinguisher yet made for the purpose for which it is intended. It has the very great advantage that it is always instantly operable, its operability being absolutely unaffected by time. It requires no re-charging until used.

Not the least advantageous feature of the extinguisher is the harmlessness of the liquid employed, it having no injurious effect on anything that it may strike when putting out a fire.

I can see no defects in the device. I congratulate you upon the device, and wish you the greatest possible success, which you deserve.

Faithfully yours,

HUDSON MAXIM.

P. S.—Hudson Maxim is Chairman of the United States Consulting Board.

Hermetically
Glass Sealed
Acid Bottle
(cut 1/2 size)

his advise the town grew prosperous, extremely prosperous.

By and by other prosperous people felt this little old man was in their way. So he went to live in the heart of a great forest. The life of Father Thrift in these old, old woods, his wise tactful advice to the improvident among the birds and beasts cannot fail to make children think and later to act. Children are very quick in drawing a moral for themselves. The literary style is delightful and adds a charm to "one of the most fascinating and intrinsically valuable stories ever written for children."

Agricultural Laboratory Exercises and Home Projects Adapted to Secondary Schools.

By Henry J. Waters and Joseph D. Elliff. Cloth, 218 pages. Price, 90 cents. Ginn & Co., Boston, New York, Chicago.

A recent president of the Kansas State Agricultural College and a professor of high school administration, University of Missouri, are the authors of this manual. Its three parts treat of plant-life and growth, the soil and its management, field and orchard crops, insect and plant diseases and their control, breeds and types of farm animals, and feeding farm animals.

Each sub-topic is handled scientifically, yet it may be questioned if the 160 illustrations, the searching exercises, the many score cards are not more valuable. Putting down essential points in an exact and orderly way is an aid to exact, orderly work. The portion of the book devoted to the care of a home garden, of a pig, of some poultry, is timely. Such work is as necessary this season as it was a year ago.

Essentials of English.

By Henry Carr Pearson and Mary F. Kirchwey. Cloth, 454 pages. Price, 64 cents. American Book Company, New York, Cincinnati, Chicago.

Many subjects studied in our secondary schools are now under discussion, experiment, change. Some of these changes are poor; some doubtful; some good. Still certain fundamental principles should not be ignored. It is positively cheering to find that in this textbook such principles have not been overlooked, but have been stated in their proper proportions, have been thoroughly explained and illustrated by examples from fine

LIPPINCOTT'S FARM MANUALS

For High Schools and Colleges

- 1 Productive Dairying*
By R. M. Washburn, of the University of Minnesota . . . \$1.75
- 2 Productive Poultry Husbandry*
By Harry R. Lewis, of New Jersey Experiment Station . . . 2.00
- 3 Productive Horse Husbandry
By Carl W. Gay, of the University of Minnesota 1.75
- 4 Productive Orcharding*
By Fred C. Sears, of Massachusetts Agricultural College . . . 1.75
- 5 Productive Swine Husbandry
By George E. Day, of Ontario Agricultural College 1.75
- 6 Productive Feeding of Farm Animals
By F. W. Woll, of University of California 1.75
- 7 Common Diseases of Farm Animals
By R. A. Craig, D. V. M., of Purdue University 1.75
- 8 Productive Vegetable Growing*
By John W. Lloyd, of University of Illinois 1.75
- 9 Productive Farm Crops*
By E. C. Montgomery, M. A., of Cornell University 1.75
- 10 Productive Bee-Keeping
By Frank C. Pellett, State Apiarist of Iowa 1.75
- 11 Productive Sheep Husbandry
By Walter C. Coffey, University of Illinois 2.50
- 12 Injurious Insects and Useful Birds
By F. L. Washburn, M. A., University of Minnesota 2.00

*Especially adapted for high school use.

J. B. LIPPINCOTT COMPANY, Publishers
PHILADELPHIA
E. Washington Square

CHICAGO
2126 Prairie Avenue

literature, and have been finally arranged in excellent summaries.

The subject of composition in Part II is considered in large units. Here fine selections serve as models, interesting pictures and good lists offer suggestive subjects for oral and written composition.

Exercises for "Methods of Teaching in High Schools."

By Samuel Chester Parker. Cloth, 257 pages. Price, \$1.20. Ginn and Company, Boston.

These exercises are most interesting reading. This phrase "most interesting" is used advisedly as it is true even if the reader has not seen the textbook for which they were specially prepared. The topics are developed in such a large yet pointed fashion they cannot fail to give helpful suggestions, to many a teacher.

Certain standards have guided the author in his work, so these exercises apply a specific discussion in the textbook, raise issues of practical importance in teaching, set a problem which requires reflective thinking, appeal to the interests of students who expect to teach, are not too easy nor too difficult, contain actual data.

High Speed in Typewriting.

By A. M. Kennedy and Fred Jarrett. Cloth, 36 pages. Price, \$1.00. Isaac Pitman & Sons, New York.

This book is not for beginners, but for typists who have had a good grounding and who wish to work up to a high standard of efficiency in this art.

Some of the prominent features in the fifty lessons are correct position of the hands and fingers, strengthening the weaker fingers, cultivation of a sharp stroke upon the keys, cultivation of economy of movement and concentration upon the exercise. Repetition is constantly required. If eternal vigilance is the price of liberty, eternal practice is the price of accuracy and speed in typewriting.

Survey of the St. Louis Public Schools (Part III).

By Charles H. Judd and H. O. Rugg. Cloth, 246 pages. Price, \$0.75, net. World Book Co., Yonkers, N. Y.

If any schoolman should doubt that St. Louis has a most efficient business department, this volume will present to him unanswerable cause for changing his mind. We have seen few surveys, made in a critical but fair attitude, that prove so absolutely the wisdom of the policies and methods of a group of school officers. Incidentally, the book is a good guide to standards of business management and financial policies. The only disappointing feature of the book is the failure of Dr. Rugg to say definitely what the future financial policy of the schools shall be.

School Statistics and Publicity.

By Carter Alexander. Cloth, 332 pages. Silver, Burdett & Co., New York, Boston, Chicago.

Here is a significant book—one that we should wish to see in the working library of every school superintendent and school board secretary. It is, in brief, an exposition of methods of collecting school data and of presenting them in the most advantageous forms for the purposes of reporting and publicity. The author takes up the subject concretely and makes his arguments largely by means of tables, graphs and forms drawn from recent reports, surveys and magazine articles. The chapters on the collection of data and the preparation of graphs are the two most useful of the twelve in the work. The book is complete, and while a bibliography is suggested, the superintendent who masters the methods suggested will not find it necessary to go afield for further helps.

Marmion.

By Sir Walter Scott. Edited by Zeima E. Clark. Cloth, 290 pages; illustrated. Charles E. Merrill Company, New York and Chicago.

An accurate reprint of the complete poem. It contains a limited amount of teaching material—sufficient for any wide awake teacher or student.

Rip Van Winkle and The Legend of Sleepy Hollow.

By Washington Irving. In the Amanuensis Style of Phonography. By Jerome B. Howard. Paper, 51 pages. The Phonographic Institute Co., Cincinnati.

Mr. Howard is doing more than any author or publisher of shorthand books to give students

FORTHCOMING NEW EDITIONS

McLaughlin and Van Tyne's

HISTORY of the UNITED STATES for Schools

The publishers are now preparing the 1919 Edition of the text. The new matter covers the events leading up to our entrance into the war and the part that we played in it. There are in the world today no two men better equipped to write on this subject. The new edition will be ready for the fall term.

McLAUGHLIN'S

HISTORY OF THE AMERICAN NATION

For the 1919 edition of this standard history the closing chapters have been rewritten, with discussions of the war, our preparation for it and our part in it. Dr. McLaughlin, through his war service, is particularly well equipped to write this important new material.

Upham and Schmidt's

AN INTRODUCTION TO AGRICULTURE

This is more than a revision of Upham's "Introduction to Agriculture"—it is really a new book. The abundant practical material in the book, along the lines in which young people are most interested, makes it the best book for teaching agriculture in the new way, that is, by means of the problem and project method.

ADAMS'

An Elementary Commercial Geography

This is a thorough revision of this widely used book. Almost every chapter in the book has been revised to include the most recent knowledge, and a new chapter has been added on "The World Today."

Send for complete information

THESE ARE APPLETON BOOKS

New York D. APPLETON & COMPANY, Publishers

Chicago

interesting material for reading. He deserves to be thanked by the profession for this service because it is doing much to give stenographers a vocabulary, the lack of which is the greatest single fault which business finds in beginners.

Representative American Poetry.

Edited by E. B. Richards. Cloth, 158 pages. Charles E. Merrill Company, New York, Chicago.

The poems in this choice collection were not intended to be studied but to be read for pleasure, pure pleasure. Many of them will become part of the mental and spiritual possessions of boys and girls.

The first poem in this little book was written in 1814; the last, in 1914. As is wise and fitting, many of these poems are patriotic, since our schools are working for Americanization and since it is well that our children of foreign-born parentage should become acquainted with poems having a distinctly national flavor.

The Winston Simplified Dictionary.

Edited by William Dodge Lewis and Edgar A. Singer. Cloth, 12 mo., xxii and 820 pages, illustrated. Price, 96 cents postpaid. The John C. Winston Company, Philadelphia, Chicago.

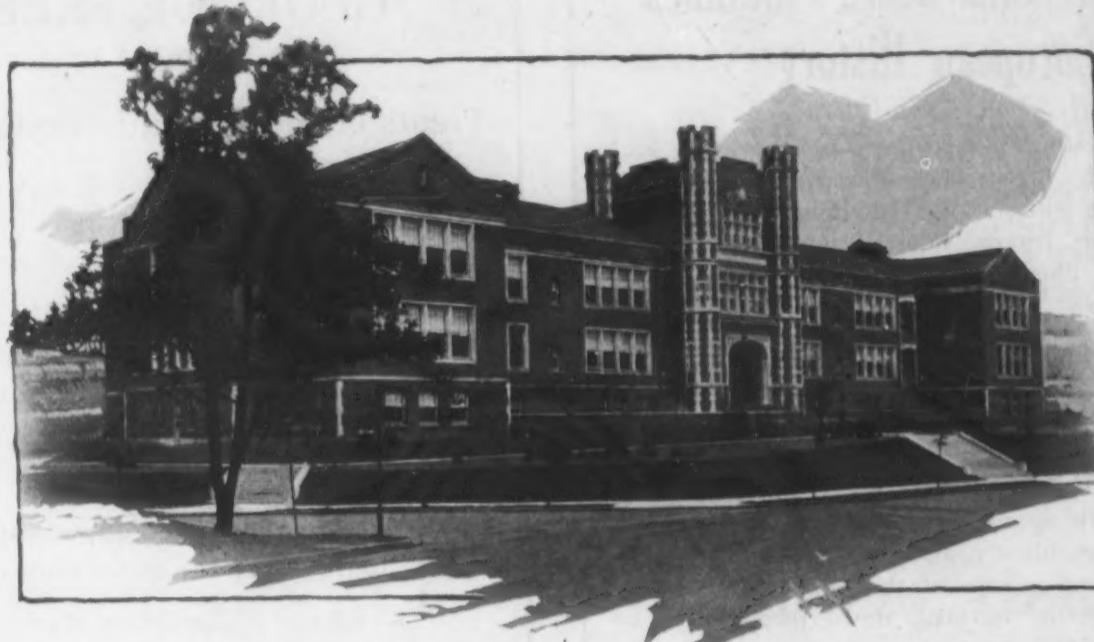
Two noteworthy points in this dictionary are: A carefully selected vocabulary which includes not only all words in common use, but the rapidly growing special vocabularies of science, art, war, and an explanation of every word in such simple language that only a single reference will be needed. The chapter on the growth of our language is most valuable. Then there is a special glossary of business terms.

This clearness and simplicity will promote among our school children the desirable habit of consulting a dictionary.

PUBLICATIONS.

Hollywood Arithmetic Tests. Price, \$0.45 per one hundred. Issued by the Division of Educational Research, 709 Security Bldg., Los Angeles, Cal. This series of tests has been carefully worked out in conjunction with a committee of teachers in the Los Angeles schools and may be had in three forms. The tests aim to assist grammar grade teachers in discovering the

(Concluded on Page 87)



COLFAX SCHOOL, PITTSBURGH, PA.
Edward Stotz, Pittsburgh, Pa., Architect

Equipped with Sirocco Products

"Sirocco"
TRADE MARK

BRING OUTDOOR AIR INTO THE INDOORS

THE GROWING CHILD needs fresh, pure air more than any other human being. Particularly does he need it in school while his brain is being taxed—his mind developed. Today school ventilation is being given greater attention than ever before. To combat disease and keep the school up to the standard, provision must be made for an adequate supply of pure, fresh air into the rooms at all hours of the day.

With the "SIROCCO" system of ventilation pure air is furnished, warmed to the proper degree in Winter and cooled to the right temperature in Summer. Many of the most important schools in the country are "SIROCCO" equipped.

*"Three Questions Concerning School Ventilation"
is the title of a new book we have just issued, which
discusses this all-important problem of school ventila-
tion. May we send you a copy?*

AMERICAN BLOWER COMPANY

DETROIT, MICHIGAN

CANADIAN SIROCCO COMPANY, LTD.
WINDSOR, ONT.

BRANCHES
IN ALL LARGE CITIES

Up to dateScholarlyVivid

An Ideal Two-Year History Course

Robinson-Breasted-Beard's Outlines of European History

THIS accurate and stimulating two-year course for high schools was written by historians of international standing. It is supplemented by an unusual number of noteworthy illustrations. Part I, \$1.64. Part II, \$1.64.

Part I covers oriental, classical, and medieval history to the beginning of the eighteenth century. It places emphasis upon conditions under which men lived and upon the ideas which they held.

Part II gives an exceptionally full treatment of recent history, adequately covering the causes and events of the Great War and carrying the narrative down through the signing of the armistice.

Ginn and Company

2301-2311 Prairie Avenue

15

Chicago, Illinois



(C) Underwood & Underwood

This illustration is Stereograph No. 132 in the UNDERWOOD "WORLD VISUALIZED" SCHOOL SERIES, which, together with many others in the set, contains the germs of patriotism.

The Underwood Visual Instruction System is prepared for use in teaching 25 different school subjects. The stereographs and slides are so selected and cross indexed that each stereograph or slide is made to serve for all the school subjects for which it has teaching value. One thus does the work of 12, and the sets of 600 and 1,000 perform the work of twelve times as many. This means great economy. A comprehensive cloth-bound Teachers' Manual of 700 pages, prepared by the editorial board of expert educators, is furnished with each set. This is the teachers' authoritative guide.

We will gladly send you lists of special school material on request.

Astronomy, Birds, Botany and Floriculture, Entomology, Famous Paintings, Physics, Zoology, and many others.

Underwood & Underwood

417 Fifth Avenue, [Dept. S. B.]

New York City

Modern Elementary School Practice

BY

GEORGE E. FREELAND

University of Washington

Treats of modern educational development along four lines:

1. The development of a new methodology which works through the use of problems, projects, motives and interest.
2. The selection of subject-matter that is worthy of the time and the efforts of pupils.
3. Teaching in a way that will conserve children's health.
4. The realization of a proper balance between the individual and the social ends of education.

(Ready in May)

THE MACMILLAN COMPANY

64-66 FIFTH AVE., NEW YORK

Chicago Boston Dallas Atlanta San Francisco

IMPORTANT ANNOUNCEMENT

An Extended Revision of Rocheleau's Geography of COMMERCE AND INDUSTRY Has Just Been Made

STATEMENT TO THOSE NOW USING THIS TEXT BOOK

The subject matter of a book like the "Geography of Commerce and Industry," made up largely of information and statistics regarding the production and consumption of the world, must be kept as nearly up to date as possible.

We have just published a complete revised edition brought up to date and with many new illustrations.

South America, which now means so much more to us commercially than ever before, is given special attention in the way of illustrations.

You will want this new edition. Over one hundred changes have been made.

TO THOSE NOT YET USING THIS VOLUME

Do Your Pupils Know

1. What proportion of the land and of the earth is inhabitable?
2. How wheat, corn, cotton and other great farm products are grown, marketed, and used?
3. How gold, silver, iron, coal and petroleum are mined and shipped, and their respective relations to the industrial and commercial life of the United States and of the world?
4. Of the worth and dignity of labor?
5. Why some products are more valuable than others?
6. What proportion of the world's supply of wheat, cotton, cattle, hogs, lumber, iron, copper, coal and manufactures are produced by United States?
7. How a bank does business? What a clearing house is? How remittances are made, and the relation of money to commerce and industry?
8. Why the great cities of the world are located where they are?

These and many other questions of equal importance are clearly and fully answered in

"GEOGRAPHY OF COMMERCE AND INDUSTRY" Over 100 Illustrations. 8vo. 440 pages. Cloth. Mailing Price, \$1.25

YOUR PUPILS SHOULD BE SUPPLIED
WITH COPIES OF THIS POPULAR TEXT

EDUCATIONAL PUBLISHING COMPANY

2457 Prairie Avenue 50 Bromfield Street 18 E. 17th Street 717 Market Street
CHICAGO BOSTON NEW YORK SAN FRANCISCO

How the Map of Europe Will Look



when the peace congress concludes its work will not obsolete the old map. You will want the old and the new maps for years to come to teach your children the study of "the great world war."

The Bacon Semi-Contour Wall Maps

are made without borders. Every square inch of the map sheet is covered with map information. For the size sheet "The Maps without the Border" are on a larger scale than others. They look like a piece cut out of a large globe. They give the pupil a correct concept of the earth. Many of the new features incorporated in these maps are just the natural outcome of the innovation of utilizing every square inch of space in the map sheet with informative material.

A card to us will bring you details of the specifically educational features of these maps.

WEBER COSTELLO CO., Chicago Heights, Ill.



Ask your dealer for "W-C Time Tested" School Supplies



"OLD RELIABLE" HYLOPLATE BLACKBOARD— $\frac{1}{3}$ Century
GEOGRAPHICAL GLOBES—38 years experience
COSTELLO HANGING GLOBE—13 years
WEBER NOISELESS AND DUSTLESS ERASERS—26 years

COSTELLO DOUBLE SEWED ERASERS
UNIVERSAL and MANHATTAN ALL FELT ERASERS
SANITARY BLACKBOARD ERASER CLEANER
ALPHA DUSTLESS CRAYON—50 years

LIQUID SLATING—46 years
COSTELLO AUTOMATIC MAP CASES
BACON STANDARD WALL MAPS
BACON SEMI-CONTOUR MAP SERIES

amount of arithmetic ability possessed by their pupils and have been so compiled as to cover the whole field of arithmetic as taught in the eight years of the elementary schools.

Some phases of Reading in the Elementary School. Walter A. Abbott. Reprinted from a series of papers by the Division of Educational Research, Los Angeles, Cal. This pamphlet aims to impress upon teachers that reading is the most important subject with which teachers have to deal in the elementary school. The pamphlet discusses the purpose of reading tests, interpretation, variability, overlapping.

Arbor and Bird Days. Illinois Bulletin for 1919. Prepared by H. T. Swift, Department of Publicity. Issued by Francis G. Blair, Springfield, Ill.

Health Supervision of Working Children. George P. Barth, M. D., Supervisor of School Hygiene, Milwaukee, Wis. This pamphlet represents a study of the question of health inspection for children who are employed on permits. It is urged that no child be given a permit until he is in the best physical condition.

Three Questions Concerning School Ventilation. American Blower Co., Detroit, Mich. One of the most important factors in the care of schools is the ventilation of the classrooms and it is here that the best judgment must be used. This pamphlet discusses temperature, dust and humidity and outlines methods for testing air conditions in order to determine whether the room conditions are what they should be. The chart which has been worked out for school purposes, is based on the percentage method adopted by the Ventilation Division of the Chicago Health Department and has been successfully used in different locations. The outline of the method for making the tests includes such matters as temperature and humidity, air motion, dust, bacteria, odors, carbon dioxide, distribution. The American Blower Company presents as a remedy for bad air conditions, its plenum or Sirocco system of ventilation and its sirocco air conditioning apparatus.

Forty-seventh Annual Report of the Secretary and Treasurer of the School District of Kansas City, Mo., for the year ending June, 1918.

School Laws of Pennsylvania for the Year 1917. Nathan C. Schaeffer, State Supt., Harrisburg. This book provides an index to the laws and decisions of the state relating to the conduct and operation of the schools.

TEXTBOOK NEWS.

Mr. H. G. Brown of Lebanon, has been appointed Indiana representative of the Macmillan Company. He was up to the time of appointment a member of the state board of education.

The Gregg Publishing Company has announced the opening of its Boston office at 80 Boylston Street, corner of Tremont, under the management of Mr. Ralph R. McMasters, formerly Assistant Manager of the New York office.

MR. EHLE JOINS LIPPINCOTT'S.

The Chicago office of the J. B. Lippincott Company has just enlarged its field force, adding to its staff Mr. Carlton E. Ehle who for more than five years represented the World Book Company in Michigan, Ohio and elsewhere. Mr. Ehle begins his new work April first. For the present

at least he will continue to reside at Ann Arbor, Michigan, devoting his time to state adoption work and the larger cities in the Chicago field.

Mr. Virges Wheeler, formerly of Prang & Company, who has had much experience in the textbook field, has also allied himself with the Chicago office of the J. B. Lippincott Company. Mr. Wheeler has a very extensive acquaintance throughout the middle west. Illinois and Wisconsin will be his permanent territory.

SCIENTIFIC MANAGEMENT IN WISCONSIN SCHOOLS.

Recent reports of school superintendents and principals of Wisconsin on the extent of the use of standard tests show that in 1916-17 more than 36,000 children were tested in spelling and 7,200 in handwriting, representing all classes of schools. Additional returns from cities represent approximately 8,000 tested in arithmetic, 7,500 in reading and 5,800 in composition.

In 1917-18 tests were given generally on a co-operative basis in both city and rural schools. Under this arrangement, tests were arranged at regular conferences of superintendents, supervisors and principals and were conducted at specified times during the year. Under this plan, 10,000 children in rural schools representing 31 counties were tested in arithmetic. In cities the number tested in arithmetic were more than 18,000, in reading 9,700, and in algebra 1,700. Fifty-nine cities reported they gave the tests in arithmetic, 33 in reading and 22 in algebra. A considerable number of city schools repeated their tests in arithmetic and algebra in order to note improvements.

Among the results of the tests in Wisconsin are the increased interest manifested by the schools and the recognition of a need for more accurate methods of evaluating the product of the schools. All of the results point to the need of training teachers in the use and application of scientific methods of studying the achievement of results. More attention should be given it by institutions engaged in the training of teachers. Above all, the tests proved conclusively that there is ample room for improving the instruction in all branches and that there is need for studying the individual child and his possibilities for growth.



CARLTON E. EHLE
Chicago, Ill.

Catch Step with the Forward Movement!

Supplement your own ability with books which eliminate the waste, and convert every ounce of effort and energy into positive mentality and manual dexterity.

BARNES' BRIEF COURSE

meets the Shorthand situation. No retracing of steps, for nothing is taught to be unlearned.

No transition from theory to practice, for a graded dictation course begins in the second lesson and continues without interruption until the pupil is ready for any dictation.

A. M. WOLFORD, STUTTGART BUSINESS COLLEGE, says: "We are very much pleased with your course, and are getting good results. I like the way the work is presented. It eliminates so much of the unnecessary work that most books require."

A. D. MORRIS, OFFICIAL REPORTER, NEW CASTLE, PA.—"Am recommending your system to one of my attorney friends. I like your arrangement of the outlines and the new way of getting at the business—taking it in its proper order and not having to take 15 or 18 lessons before you get what is so much needed."

MRS. CHAS. B. COMPTON, MT. AIRY, N. C.—"Fine, brief, concise, comprehensible, and interesting from the start. Have a class of High School graduates, with three teachers—graduates of the State Normal."

This is the day to send for examination copies. Make your selection before the June rush. Paper-bound Brief Course, either Benn Pitman or Graham, free to Shorthand Teachers or Superintendents; Typewriting Instructor on approval. \$1.50, \$1.00, and 50c editions.



St. Louis, Mo.

Winning a Cause

A New Book by the Author of Lest We Forget

America's Part in the World War

from the declaration of war to the deliberations of the Peace Conference forms the theme of this new book. Stories of pluck and heroism from every branch of the service, of the work of civilians, of the secret service, and of women in hospital and factory have been gathered here.

Full of important documentary material, of thrilling extracts from letters of sailors and soldiers, and of the best war poetry.

Profusely illustrated from official photographs taken at the front.

SILVER, BURDETT & COMPANY
BOSTON NEW YORK CHICAGO SAN FRANCISCO

Effective Business Letters

Modern business is demanding not only that students learn to write correct English but that they learn to give it the business slant.

EFFECTIVE BUSINESS LETTERS by Edward H. Gardner is built around just such a plan. Every chapter of the book is crowded with actual business situations in the development of which the question of pedagogical presentation is carefully considered.

We will gladly send a copy of the book for examination upon request. The price is \$1.50.

The Ronald Press Co.

Text Book Dept.

20 Vesey Street, New York City

Ideal Book Covers

The School Boards will find this series of Book Covers the cheapest and most durable one-piece cover on the market today. Samples sent on application.

PECKHAM LITTLE & CO.

SCHOOL AND COLLEGE SUPPLIES

57-59 East 11th Street

New York, N. Y.



Shorthand in Twenty Short Lessons

PITMAN'S SHORTHAND RAPID COURSE

Adopted by the New York Board of Education
Cloth, 198 Pages, \$1.50

The object of this book is to provide a simple and rapid course of instruction for those who wish to write shorthand within a short time.

The principles are introduced in an entirely new order and with certain groupings that have never previously been adopted. The learner is enabled to write separate words in the first lesson, and sentence writing in the third.

"I wish to tell you what a splendid book I have found Pitman's Shorthand Rapid Course." It is the best text that I have yet seen in Pitman's Shorthand. I think that word building principle so completely used in this textbook makes the study from it very simple. The omission of exceptional words and the carefully selected vocabulary makes it the proper work to use where the time is limited.—Charles L. Frank, Teacher of Isaac Pitman Shorthand, New York University, and Washington Irving High School, New York City.

Write for particulars of a Free Mail Course for Teachers

ISAAC PITMAN & SONS, 2 West 45th Street, NEW YORK
Publishers of "Practical Course in Touch Typewriting," 85c.; "Style Book of Business English," \$1.00; adopted by the New York Board of Education.

A Rare Combination of Talent

SELDOM, if ever, in the history of the schoolbook industry has a publisher been so fortunate as to secure the combined talent of three of the leading educational experts of the country in the preparation of a single textbook. These experts are:

DR. FRANK E. SPAULDING MISS CATHERINE T. BRYCE
Superintendent of Schools, Cleveland, Ohio Assistant Superintendent of Schools

DR. HUBER GRAY BUEHLER
Headmaster, The Hotchkiss School, Lakeville, Conn.

each of whom has had the widest experience in actual classroom work, supervision and textbook making. It is difficult to conceive of a more admirable union of ripe scholarship and teaching experience than the work of these authors represents. The textbook is the

ALDINE THIRD LANGUAGE BOOK
LANGUAGE GRAMMAR COMPOSITION
For Grades Seven and Eight and Junior High Schools

NEWSON & COMPANY
73 Fifth Avenue, New York 623 So. Wabash Avenue, Chicago

PREMIER ENGRAVING COMPANY



WE Specialize in making
Halftones, Zinc etchings,

Electrotypes for Annual Reports, School Magazines, College and High School Annuals.

We are in a position to give expert advice and assistance in purchasing engravings effectively and economically.

Write us for quotations.

1105 VLIET STREET PHONE GRAND 1231
MILWAUKEE

CATALOG "A"**AGRICULTURE**

Soils Apparatus, Soils, Fertilizers, Crop Materials, Field Instruments, Type Samples, Animal and Dairy Husbandry, Apparatus and Supplies, Project Records and Special Agricultural Laboratory Furniture.

READY MAY, 1919

CATALOG "B"**BIOLOGY**

Microscopes, Prepared Slides and Material, Incubators, Sterilizers, Culture Media, Biological Glassware, etc.

READY MAY, 1919

Look Over the latest editions of Our Catalogs

when planning your new
Buildings, Departments or
Science Laboratories.

We have more than doubled the capacity
of OUR SCIENTIFIC FACTORY, and can
therefore guarantee

Quality and Service

Cooperate in Securing Service. At your request,
on orders to be shipped May to September, we
will give September dating on invoice.

CATALOG "C"**CHEMICALS**

A complete and convenient list
of Chemicals, Reagent solutions,
Genuine Gruebler Stains Dry,
Rocks, Minerals, etc.

READY MAY, 1919

CATALOG "G"**GENERAL LABORATORY APPARATUS**

Apparatus and Supplies for
Physics, Chemistry and Physical
Geography Classrooms and
Laboratories.

**ISSUED
NOVEMBER, 1918**

W. M. WELCH SCIENTIFIC COMPANY

Manufacturers, Importers and Exporters

1516 Orleans Street

CHICAGO

PERSONAL NEWS OF SUPERINTENDENTS.

Dr. W. B. Olds of Marshall, Mich., has been elected superintendent of schools at Escanaba, to succeed F. E. King, who resigned a short time ago to take a position as superintendent of schools in an Illinois city.

Prof. C. W. Cookson, superintendent of the Troy (Ohio) schools, was elected superintendent of the Franklin county schools for a two-year term at a salary of \$4,000 per year. He succeeds W. S. Coy, who has been in France with the Y. M. C. A.

Supt. J. A. Wiggers of Elkhart, Ind., was re-elected for another period of three years.

Supt. O. W. Herr of Red Wing, Minn., has been re-elected at a salary of \$2,700 per annum, an increase of \$200 over last year.

Supt. W. G. Balcom of Bemidji, Minn., has been re-elected with an increase of salary from \$2,500 to \$3,000 a year.

Supt. S. W. Baker, of Manistee, Mich., was re-elected for another year with an increase of salary of \$300.

Supt. S. T. Neveln, who has been superintendent of the Le Mars, Ia., city schools for the last three years, was re-elected at a salary of \$2,500.

J. W. Studebaker, assistant superintendent of the Des Moines, Ia., schools, has returned to take up his duties. He has been in Washington, D. C., finishing up work with the Junior Red Cross Department.

Supt. H. C. Snyder has been re-elected as head of the public schools of Stevens Point, Wis., at a salary of \$3,000 a year.

Supt. Ernest Iler of Antigo, Wis., has been re-elected at a salary of \$2,800.

The position of assistant superintendent of the Dallas, Tex., schools has been filled by N. R. Crozier, former principal of Bryan Street High School and director of the high schools of the city.

Supt. J. V. Voorhees of Winona, Minn., was re-elected for his seventh term with an increase of \$350 a year in his salary, bringing it up to \$3,100.

Supt. L. McCartney of Hannibal, Mo., was re-elected.

Dr. J. A. C. Chandler, former superintendent of schools of Richmond, Va., has been elected president of William and Mary College. He has been identified for a long time with the Richmond College; he holds degrees from the University of Virginia, and from Johns Hopkins University. For a number of years he has been a member of the State Board of Education. He was editor for Silver, Burdett & Co., publishers, and editor of the Virginia Journal of Education. For the last ten years he has been superintendent of schools at Richmond.

Supt. C. C. Alexander has been re-elected at Hibbing, Minn., at a salary of \$5,600 per year.

Supt. M. H. Moore was recently re-elected superintendent of the Fort Worth, Tex., schools with a salary of \$4,200 per year.

H. E. Wolfe has been elected superintendent of schools at Deer River, Minn. Mr. Wolfe has been doing overseas work as a Y. M. C. A. secretary, serving in France seven months. He will take up his new work August 1st.

C. J. Waits, superintendent of schools at Terre Haute, Ind., has resigned.

Professor Dalzell, superintendent of schools at College Springs, Ia., has been elected to the superintendency of the schools at Shenandoah, Ia., for the coming year.

Supt. J. P. Womack of Jonesboro, Ark., has been re-elected.

Supt. L. H. Minkel has been re-elected for his ninth consecutive year as superintendent of the Fort Dodge, Ia., schools, with a salary of \$4,800 a year.

Professor Gilmer Siler, former principal of Technical High School at Atlanta, Ga., has been elected assistant superintendent of schools, under Charles S. Culver, acting superintendent. Professor Siler has just received his discharge from the military service.

Supt. H. G. Brown of Lebanon, Ind., has resigned as a member of the state board of education.

Supt. F. T. Vasey of Mason City, Ia., has been re-elected.

Supt. F. Mahannah of Cedar Falls, Ia., was re-elected for another three years with a slight increase in salary.

Supt. T. R. Roberts of Independence, Ia., has been re-elected at a salary of \$2,200.

Prof. Edwin F. Moulton, one of the best known educators in Ohio, died at Warren, O., on March 7th, after a long illness.

Edwin Franklin Moulton was born in Canada and spent a great part of his boyhood in the state of Ohio. He was a graduate of Antioch and of Oberlin Colleges and his first teaching was in Ohio. Later he became principal of the New England Christian Institution in New Hampshire. He was superintendent of schools at Oberlin for seven years and of the Warren schools for twelve years. In 1888 he came to Cleveland as a supervisor, later becoming assistant superintendent. In 1902 he was elected superintendent of schools.

Supt. F. M. Longanecker, of Racine, Wis., has been re-elected for a three-year term with salaries of \$3,500, \$3,700 and \$4,000 respectively.

Supt. A. W. Crane of Fairfield, Ia., has been re-elected.

Livingston, Montana. Supt. B. A. Winans has just been re-elected by the board of trustees for a term of three years at a salary of \$3,600 per year, plus expenses while attending educational meetings.

In discussing the re-election and salary of the superintendent, the board took the stand that the superintendent of schools should be made sole manager of the school plant and should be paid a salary commensurate with the business head of any other firm handling the same amount of money and doing the same size business; also that it should be something near that given by the public to men of other professions with the same caliber and professional preparation—as that of the better doctors and court judges of the same community.

Dr. Thomas Stockham Baker, formerly Headmaster of the Tome School, Port Deposit, Maryland, has become Secretary of the Carnegie Institute of Technology, Pittsburgh, Pa. Dr. Baker was formerly instructor at the Johns Hopkins University and became the head of the Tome School in 1908. He began his work at Pittsburgh on March 1st.

TEACHERS' GUIDES

These practical aides for the teacher promote efficiency in the class room. They include plan books, teachers' daily blotters, teachers' daily plan sheets for primary grade and high school work, teachers' practical guides, opening exercises, etc.

THE "METSUCO" LINE

Diplomas	Teachers' Guides
Card Index Systems	Registered Records
Metsuco Report Systems	Papers of All Kinds
Character Building Systems	

Write today for samples of the METSUZO line or have our expert advise you on forms, systems, records, school laws, etc.

METROPOLITAN SUPPLY COMPANY, ANAMOSA, IOWA

WE OWN AND OPERATE OUR OWN PLANT.
PAPER PRODUCTS DIRECT FROM FACTORY TO CONSUMER

you must furnish soap to make your showers a real success

No shower bath is *complete* without soap. Yet you can't afford to give soap away. Too much bother to sell it over the counter.

The PALMOLIVE Vending System solves the problem. A penny in the slot brings an individual cake of soap. The machine requires no attention, and makes soap sales profitable.

It will cost nothing to install this system in your school. Ask for "Soap and Clockticks," a free book.

The Palmolive Company Dept. A-4 Milwaukee, Wis.
SPECIALISTS ON INDIVIDUAL SOAP FOR GYMNASIUMS

Mr. M. D. Aygarn has been re-elected as superintendent of Sauk Centre, Minn., for a term of three years. At the close of the present school year Mr. Aygarn enters his ninth term in Sauk Centre.

Mr. Thomas W. Bickwell of Providence, R. I., recently celebrated the 50th anniversary of his original appointment as state commissioner of schools for Rhode Island.

Mr. Vaughan MacCaughey, for nine years a professor in the College of Hawaii, on April first became Superintendent of Public Instruction for the Territory of Hawaii.

Mr. McCaughey was born in South Dakota and spent his boyhood in Ohio. He is a graduate of Cornell University and has done some work in the extension division of the New York State College of Agriculture. He formerly had charge of the research work at the Hull Botanical Laboratory, University of Chicago. He was head of the Department of Natural Science of the Territorial Normal and Training School, Honolulu, from 1908-9 and was vice-principal in 1909. He was professor of botany at the College of Hawaii.

Mr. MacCaughey is the author of a number of papers on educational conditions in Hawaii and is a faculty member of the Chautauqua Summer School.

Supt. J. Nelson Kelly of Grand Forks, N. D., has announced his resignation to take effect July first. Supt. Kelly has been head of the Grand Forks schools for the past 25 years.

Supt. Harold E. Moffitt of the Windham School District, West Brattleboro, Vt., has resigned to become secretary of the board of trade at West Brattleboro.

Mr. C. W. Street has been elected superintendent of schools at Mankato, Minn., at a salary of \$2,800 per year.

Mr. Frank Cody has been appointed acting superintendent of schools at Detroit, Mich., to fill the place made vacant with the resignation of Charles E. Chadsey.

Mr. Edwin Balmer, a short story writer, has become a candidate for the office of Superintendent of Schools at Evanston, Ill.

Dr. Richard D. Shannon, formerly state superintendent of schools of Missouri, died March 18th

at Sedalia. Dr. Shannon was at one time connected with the State Normal at Warrensburg and also acted as superintendent of schools at Joplin. He was well known for his work in connection with the National Education Association.

Supt. A. F. Schultz of Alma, Mich., has announced his resignation, to take effect at the close of the school year in June. During his five-year incumbency, Mr. Schultz has seen the enrollment grow from eight hundred to 1,900 pupils and the teaching corps from 27 to 46 instructors. The school plant has been enlarged and improved and a new grade school has been completed at a cost of \$50,000.

Principal M. N. Todd of Township High School, Murphysboro, Ill., has been re-elected with an increase of salary to \$3,000.

Supt. E. T. Housh has been re-elected at Carroll, Ia., at a salary of \$2,500.

Supt. S. G. Reinerstein of Alta, Ia., has been re-elected at a salary of \$2,600.

Supt. A. S. Hudson of Mt. Clemens, Mich., has announced his resignation, effective with the close of the school year. Mr. L. W. Fast has been appointed to succeed Mr. Hudson.

Supt. C. E. Bryant of Coshocton, O., has gone to France where he will engage in Overseas Educational Work. E. W. Chasap is acting superintendent in his absence.

A school visiting week was held in Kane, Pa., from March 31st to April 4th. The activities of the week were in charge of Mr. H. O. Dietrich, superintendent of schools.

The schools of Munhall, Pa., have purchased a total of \$2,852.51 in thrift and war savings stamps since the first of September. The goal has been set at \$5,000 to be reached with the close of the school year in June.

DEATH OF STATE SUPT. KEELER.

Fred L. Keeler, superintendent of public instruction for Michigan, died April 4th at Ann Arbor, after a long illness. Mr. Keeler was 47.

Fred Lockwood Keeler was born in 1872 at Grass Lake, Mich. His common-school education was received in the district school and the high school at Grass Lake from which he was graduated in 1893. In 1894 he did graduate work, and was assistant in the University of Michigan. He was principal of the high school at Houghton and later head of the department of science at the Central Michigan Normal School at Mt. Pleasant. He was appointed deputy superintendent under State Supt. Wright in 1908 and continued in that office until 1913 when he was appointed State Superintendent to succeed L. L. Wright.

Mr. Keeler's whole life since leaving the University has been spent in educational work, with the exception of a year when he was engaged in post-graduate work at the University. He has been a director of the National Education Association and also acted as first vice-president of the Department of Superintendence. He was a member of the executive committee of the Michigan Teachers' Association.



FRED L. KEELER
Died April 4, 1910

SUPERINTENDENTS

LET US HELP YOU KNOW ?
YOUR TEACHERS BETTER ?

We will send you information, if you write.

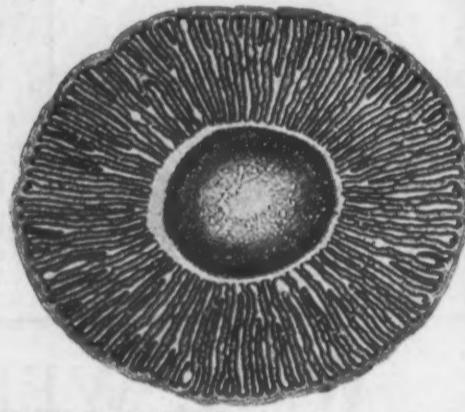
ROBERTS & MECK
101 MARKET STREET HARRISBURG, PA.

Send for
New Bulletin 154T
describing

**Prepared
Microscope
Slides**

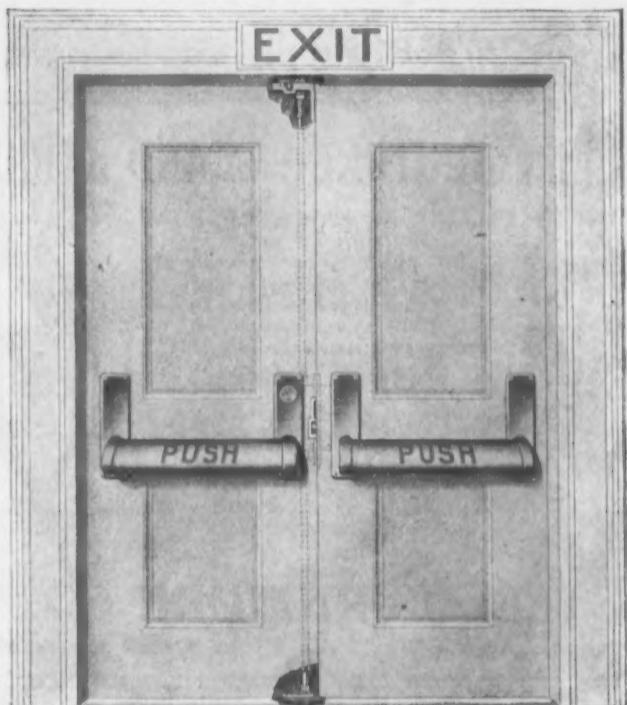
FOR USE IN TEACHING
BIOLOGY, PHYSIOLOGY AND AGRICULTURE

CENTRAL SCIENTIFIC COMPANY
CHICAGO 460 East Ohio Street U. S. A.



Safety provided in every point

Quick exit is assured and the construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.



These New

SARGENT

Reg. U. S. Pat. Off.

Fire Exit Door Bolts

are attractive in appearance, strong in construction and quick in action.

They have a wide push bar which projects only $2\frac{1}{2}$ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

**Sargent Fire Exit Door Bolts,
Locks and Hardware are sold by
representative dealers in all cities.**

SARGENT & COMPANY, Manufacturers
New Haven, Conn.

New York
Boston
Chicago


The Perfect Light For The Schoolroom—

DENZAR increases pupils' efficiency by enabling them to work without eye strain or fatigue. It floods the room with a soft, diffused radiance, with no blinding glare and no distracting shadows.

DENZAR

The Unit of Day Brightness

DENZAR makes usable the high-powered and economical Mazda "C" Lamp. The dazzling filament is completely hidden from view, but all its brightness is diffused by the bowl of white enameled glass. The deflector and the reflecting dome deflect the upward rays from the lamp and direct them downward, giving equal and adequate illumination in all directions.

The lamp is entirely enclosed and protected from dust, dirt, and insects, and the current of cool air continually passing upward around the lamp prevents overheating, thereby adding greatly to its life.

Write for the DENZAR catalog, and learn why this most modern and efficient of all lighting units is the ideal equipment for schoolrooms and assembly halls. There is a type of DENZAR for every requirement.

**BEARDSLEE
Chandelier Mfg. Co.**

Manufacturers of a Complete Line of Chandeliers
and Bronzes for Every Lighting Requirement
219 South Jefferson Street :: CHICAGO

SCHOOL DESKS

Buy Now—Today



WAR IS OVER!
Order the Furniture you need to bring
your school up to efficiency.

Railroads are slow—Anticipate your needs.

Opera and Folding Chairs,
Church and Lodge Furniture

ORDER FROM STOCK NEAREST YOU

Stafford Desks carried in stock by

J. H. Pense, Roanoke, Va.
Goldsmith Book and Stationery Co., Wichita, Kans.
R. E. Bryan, Tyler, Texas.
G. C. Everett, Baton Rouge, La.
Omaha School Supply Co., Omaha, Neb.
H. Dinswoody Furniture Co., Salt Lake City, Utah.
John W. Graham & Co., Spokane, Wash.
Lowman & Hasford Co., Seattle, Wash.
W. E. Finzer & Co., Portland, Ore.
E. D. Edwards, Oklahoma City, Okla.
Morris Bros., Stockton, Cal.
B. E. Calkin Co., Butte, Montana.
Mississippi School Supply Co., Jackson, Miss.

E. H. STAFFORD MFG. CO., Chicago, Ill.

Ask for Catalog A. J. mailed free



Perfection Steel School Desk

Send for Catalog

Columbia School Supply Co., Indianapolis, Ind.

PRACTICAL, DURABLE FURNITURE



For prompt service
and satisfaction, we
solicit your inquiries on

**School Desks,
Opera and
Folding Chairs**

Prompt shipment
and complete satis-
faction guaranteed
with every pur-
chase.



THE PEABODY SCHOOL FURNITURE CO.

NORTH MANCHESTER, IND.

"STEEL FURNITURE—GRAND RAPIDS"



Movable Desk

While Grand Rapids
is noted for wood furni-
ture, remember some
of the very best school
furniture is made by us
and we want to brand on
your mind the idea of

**"STEEL FURNITURE—
GRAND RAPIDS"**

Remember—"STEEL
FURNITURE—GRAND
RAPIDS" is hygienic and
built by experts who
know school require-
ments.



Adjustable Desk and
Chair

STEEL FURNITURE CO.

1480 Buchanan Ave., S. W.

Grand Rapids, Mich.



Sectional and Portable School Houses

If you are in need of Portable School Houses why not get the best? School Boards in thirty-two states are using our houses. Can furnish references in any section. Investigate before buying. We guarantee our

Portable School Houses

to be dry, warm and sanitary, as well as thoroughly insulated, well ventilated and with double walls. Sold in any size, open air and two rooms when desired.

Send for Plans and Prices.

**AMERICAN PORTABLE
HOUSE COMPANY**

3081 Arcade Bldg., Seattle, Wash.



To School Boards-

WORRY no longer about what you will do with your overflow districts; or new districts where you have no appropriation to build on a large scale.

OVER 1000 M. & M. GOLD BOND PORTABLE SCHOOLS
—now in use all over the U. S. Suitable, any climate, low in price, substantial, comfortable—scientifically ventilated—perfect in every detail. No carpenter work. All complete when shipped. Simply match up plainly marked sections. Can be taken down and set up without harm or trouble.

ALL SIZES—ALL PRICES. WRITE for Free Catalog containing designs, plans, specifications, prices.

MERSHON & MORLEY CO.,

95 Main Street,

SAGINAW, MICH.

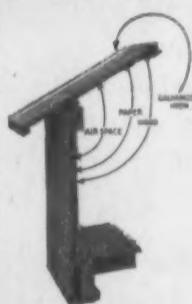
THE ARMSTRONG COMPANY SECTIONAL SCHOOL BUILDINGS

OUR PLANS
APPROVED
BY YOUR
SCHOOL BOARD

AND MEET EVERY-
REQUIREMENT
OF YOUR
BUILDING CODE

The **ARMSTRONG SECTIONAL SCHOOL BUILDINGS** are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best **Portable School Buildings** on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY, P. O., 401, ITHACA, NEW YORK



Bossert Schools

Are Warm in Winter and Cool in Summer

We are equipped to furnish any size building on short notice. Prices of same depend on requirements and State Laws—but in every case are the lowest for quality of material supplied. Remember, this is not a cut lumber proposition, and the cost of erecting is a very small item. While not essential, as any unskilled labor can do it, we will, if you desire, arrange to erect all buildings. Buildings can be taken down and re-erected any number of times without marring a single feature.

We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

LOUIS BOSSERT & SONS, Inc.

Builders of School Houses for over 25 years.

1323 Grand Street

Brooklyn, N. Y.

NO TWO SCHOOLS ARE ALIKE



Every School presents a different Heating and Ventilating Problem. Our experience in Heating and Ventilating Schools extends over a long period of years.

We will take preliminary plans or architects' sketches and furnish free detailed drawings showing application of "The American System" to your particular building.

Contracts for Complete Heating and Ventilating Systems taken anywhere in the U. S. either direct or thru branches.

WRITE FOR PARTICULARS TO

THE AMERICAN HEATING & VENTILATING CO.

200 North Fifteenth Street, Philadelphia, Pa.



THE MEASUREMENT OF A TEACHER'S WORK.

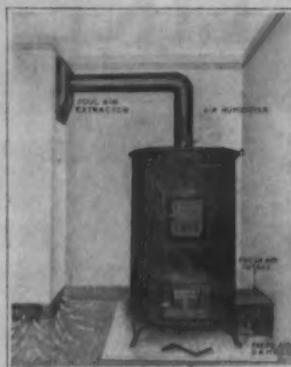
Print. H. A. Bone of the Sioux City (Ia.) high school has prepared a very practical outline as a guide to the teacher in measuring the value of his work both to the school system and to the community at large. The outline is as follows:

- A. In the relation of classroom teacher.
 - 1. By results shown by pupils in
 - a. Ability to do the work in the next higher course.
 - b. Ability to do original and independent thinking.
 - c. Ability to apply information gained.
 - d. Ability to grasp principles and understand meanings, opposite of parrot-like verbal memorization.
 - e. Ability to pass the subject.
 - f. Ability to stand on feet and talk readily and in a unified way about a topic, or give a logical demonstration without help.
 - 2. By number retained in class or by fewness of those dropped because of inability to keep up.
 - 3. By amount of thinking and reciting pupils do in inverse proportion to amount of talking done by teacher.
 - 4. By spirit, atmosphere, thoughtful enthusiasm, attention and interest shown by pupils in the classroom.
 - 5. By interest pupils develop for the subject and by the number who wish to continue in subsequent courses in that department.

- 6. By study of marks given—validity and distribution.
- 7. By comparing the actual attainment of pupils and the ground covered with the aim set for the semester's work.
- 8. By attitude students have toward teacher as shown by desire to enroll in his classes; whether due to constructive helpfulness of teacher, interest and enthusiasm for the work, or to lax requirements and ease of passing course.
- 9. By attitude students have toward teacher as shown by unwillingness to enroll in his or her classes; evidenced by frigidity in atmosphere of the classroom, unsympathetic attitude of teacher, failure to sense limitations of students.
- 10. By quality of order in classroom, whether quietness of suppression, confusion, of anarchy, or the hum of industry.
- 11. By ability to arouse and develop in students a sense of personal responsibility, respect for just authority, and a spirit of open mindedness, fair play and square dealing.
- 12. By willingness to give extra help at extra times to the student who is in arrears with his work.
- 13. By skill in directing the supervised study period.
- 14. By amount of motivation put into the work.
- 15. By amount and character of expression work employed: Drawings, maps, sand-table, illustrative construction work, charts, topical recitations, dramatization, actual doing of things, oral and written composition (not confined to English classes alone).
- 16. By encouragement given stronger pupils to do more than the work outlined for a credit, make special investigations, etc., as opportunity is offered under proportional credit.
- B. In the relation of member of a school faculty.
 - 1. By promptness of rendering reports.
 - 2. By accuracy of reports rendered.
 - 3. By reliability in execution of special assignments, such as half duty, assembly section duty, committee work, advisorships, etc., etc.
- 4. By interest in general activities of the school pupils, assemblies and general welfare of the school.
- 5. By professional spirit, desire to develop a better command of the art of teaching in the classroom, and a better command of the art of living in an atmosphere charged with the responsibility of influencing young life.
- 6. By loyalty to pupils, fellow teachers, measures undertaken by the high school and to the school system in general.
- 7. Whether general influence is for harmony and good feeling or for discord and dissatisfaction.
- 8. By sincerity of life purposes as opposed to "bluffing"; not "sporty."
- 9. By open-mindedness, adaptability, pliability, readiness to learn, willingness to try some other way; not "set."
- 10. By attitude toward the school clock.
- 11. Whether he is happy in this school, or discontented and critical.
- 12. Whether he feels above his position.
- 13. Whether he believes in the real worthwhileness of his work and of the work of the school in general.
- 14. By democratic spirit as shown by friendliness to fellow teachers, avoidance of cliques and by attendance at the social functions of the teachers, and of the school as a whole.
- 15. By discretion shown in utterances in the school and out.
- 16. By initiative in tackling an old problem or a new project and by ability to carry it to a successful conclusion.
- 17. By whether he can carry out a requirement by being told once.
- 18. By self-control and poise shown in face of trying circumstances, whether in the classroom or out.
- 19. By character of lesson planning, whether plans are based upon problems, issues, principles, projects, or upon pages and chapters.
- 20. By neatness of desk and care of room.
- 21. By desire to keep up professional and academic standing as evidenced by occasional attendance at summer schools.

(Concluded on Page 95)

The Smith System of Heating and Ventilation



Especially Adapted to Portable Schools.

Gives the most perfect heat distribution and greatest amount of ventilation with the least amount of Fuel.

More than 30,000 School Rooms are equipped with it.

In use in most of the Leading Cities.

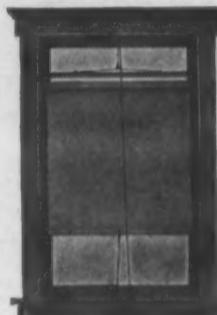
Write for Catalog.

Smith System Heating Company
Minneapolis, Minn.

2 OF THE 15 VARIETIES



**STEELE'S
DUCK
SHADES**



Write for Prices, Catalog and Free Sample

OLIVER C. STEELE MFG. CO.
SPICELAND, IND.

FOR ECONOMY AND EFFICIENCY

Squires Improved Self Closing Inkwell

It will save its cost the first year in ink and trouble. -Fits a hole $1\frac{1}{4}$ to $1\frac{1}{8}$ inch and with the adapter any larger hole.

Note these special points

Always closed, is practically air tight and dust proof. Marble cannot be removed, just enough ink on the pen and none on the children's fingers. Ink will not clog in it. Regular finish, Black Rubber, if desired, Nickel Plated.

Write for sample and prices on our full line



SQUIRES INKWELL CO., 941 Liberty Ave., Pittsburgh, Pa.

Dann's All-Steel Dictionary Holder

(Made entirely of steel)

No woods to gather germs and to warp. No iron to corrode; no springs to break. Can be adjusted to hold any size book. Can be raised and lowered at will. Can be tilted to any angle and pivoted to any position.

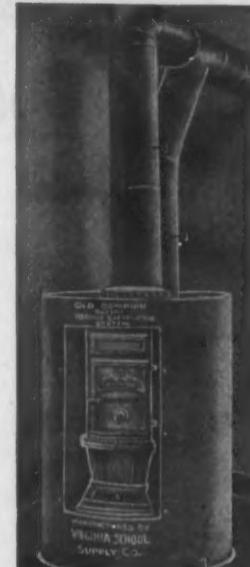
Circular and prices of our Stand and Wall-Bracket Holders mailed on request

Union School Furnishing Co.

Manufacturers, Publishers and Dealers in School Furniture and School Supplies

Chicago, Ill.

Houston, Tex.



Protect the Health of the Children

If the children in the classroom should be bright and cheery the heat must be uniform and the ventilation just right.

Heating and Ventilation are two important factors in the school room. If the air in the school room is foul and ventilation poor, disease is almost inevitable.

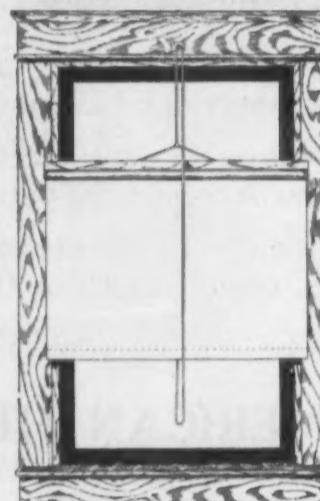
OLD DOMINION PATENT HEATING AND VENTILATING SYSTEM

will keep the room fresh with pure air, yet warm and comfortable.

No separate independent foul air ducts or flues made of brick or metal are required. It is easy to set up and regulate and will not clog with soot or rot out. Every part is combined and all stove and ventilating pipes up to five feet are furnished.

Our descriptive catalog gives full information and will be sent upon request.

Virginia School Supply Company
2000-2012 W. Marshall St. Richmond, Va.



HAMILTON WEAR-PROOF TAN DUCK ADJUSTABLE SHADES

The Pioneer Frampton and other popular styles. With and without spring rollers. Hamilton tan duck wears like iron and is proof against scorching sun, beating wind and drenching rain. Hamilton wear-proof shades in all styles to suit every condition. Guaranteed. Cover all the window or part of either sash. Furnished complete, ready to hang. The "quality" line; favorites in schools, factories, public buildings and residences. Distributed by leading supply houses.

Write for sample of material and catalog.

HAMILTON MANUFACTURING CO.
12th & Chase Sts.
ANDERSON, INDIANA

We Specialize in High School

SCENERY

Unequalled for Quality and Artistic Beauty

Our 29 years experience in equipping every design of stage and the high character of our productions warrant your careful consideration.

Information in regard to Stage Construction cheerfully furnished.

KANSAS CITY SCENIC COMPANY

24th and Harrison

Kansas City, Mo.

The Norton Liquid Door Check with Hold-Open Arms



especially adapted for schoolhouse work.

WHY IS THE NORTON CHECK WITH HOLD-OPEN ARMS THE BEST SUITED FOR SCHOOLHOUSE WORK?

1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds—the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Holder Arm attachment for holding a door open is automatic, a child can operate it—just a push or pull on the door is all there is to do to it. Every schoolroom should have one.

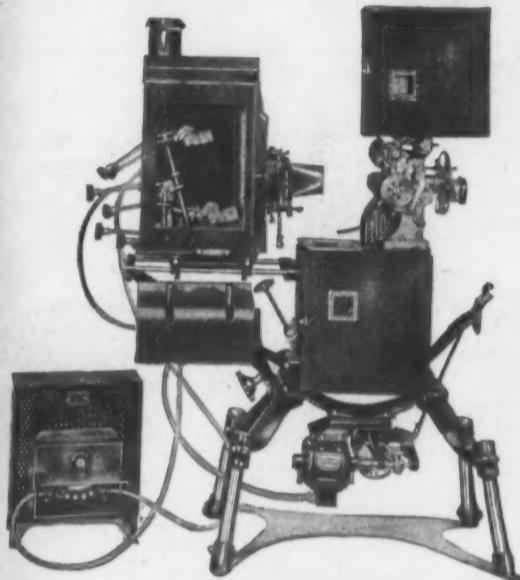
Approved by the National Board of Fire Underwriters Laboratories

THE NORTON DOOR CHECK CO., 904 W. Lake St., CHICAGO, ILL.

87% of Knowledge is Acquired Through the Eye

BECAUSE OF THIS

Motion Pictures Are An Effective Educator



They deliver their message THROUGH THE EYE and firmly impress the memory. Text books are being eliminated and study, through this medium, becomes a pleasure. Pictures must be properly projected else they fail of purpose.

Power's Cameragraph

has led the industry for many years. It finds great favor with schools where its perfect projection gives universal satisfaction.

Catalogue 33 Gives Complete Details

NICHOLAS POWER COMPANY

INCORPORATED

90 Gold Street

Pioneers of Projection

NEW YORK, N. Y.

(Concluded from Page 93)

- C. In the relation of member of the larger community of Sioux City.
- 1. By ability and willingness to meet parents and talk over difficulties of sons and daughters in a tactful and dignified, yet sympathetic way.
- 2. In school, by frank attitude of constructive effort to make the school fit the needs of the community, to bring to the school a knowledge of the community resources and possibilities.
- 3. Out of school, by frank attitude of constructive effort in out of school relations, in boarding houses, church and other social relations.

imum \$675, with increases of \$75 up to a maximum of \$1,200; cooking and sewing, minimum \$1,050, with increases of \$100 up to a maximum of \$1,450 for college graduates; minimum of \$775, with increases of \$75 up to a maximum of \$1,300 for non-college graduates; drawing, grades, minimum \$1,050, with increases of \$100 to a maximum of \$1,450 for college graduates; minimum of \$775, with increases of \$75 to a maximum of \$1,300 for non-college graduates; manual training, minimum of \$1,050, with increases of \$100 to a maximum of \$1,450 for college graduates; grades five and six, minimum \$775, with increases of \$75 to a maximum of \$1,300; music, minimum \$1,050, with increases of \$100 to a maximum of \$1,450 for college graduates; minimum of \$775, with increases of \$75 to a maximum of \$1,300 for non-college graduates; physical training in grades, minimum of \$1,050, with increases of \$100 to a maximum of \$1,450 for college graduates; minimum of \$775, with increases of \$75 to \$1,300 for non-college graduates; manual training in grades seven and eight, minimum \$1,400, with increases of \$100 to a maximum of \$1,900.

Elementary Principals—Two units, minimum of \$1,250, with increases of \$100 to a maximum of \$1,450; three units, minimum of \$1,325, with increases of \$100 to a maximum of \$1,525; four units, minimum of \$1,400, maximum of \$1,600; five units, minimum of \$1,475, maximum of \$1,675; six units, minimum of \$1,550, maximum of \$1,750; seven units, minimum of \$1,600, maximum of \$1,825; eight units, minimum of \$1,650, maximum of \$1,900; nine units, minimum of \$1,700, maximum of \$1,975; ten units, minimum \$1,750, maximum of \$2,050; eleven units, minimum \$1,825, maximum of \$2,125; twelve units, minimum \$1,900, maximum of \$2,200; thirteen units, minimum of \$1,975, maximum of \$2,275; fourteen units, minimum \$2,050, maximum of \$2,350; fifteen units, minimum \$2,125, maximum of \$2,425; sixteen units, minimum of \$2,200, maximum of \$2,500; seventeen units, minimum of \$2,275, maximum of \$2,575; eighteen units, minimum of \$2,350, maximum of \$2,650; nineteen units, minimum of \$2,425, maximum of \$2,725; twenty units, minimum of \$2,500, maximum of \$2,800.

High Schools—Principals, minimum \$3,250, with increases of \$250 up to a maximum of \$3,750; assistant principals, minimum \$2,575, with increases of \$125 up to a maximum of \$2,950; men teachers, minimum \$1,350, with increases of \$125 to a maximum of \$2,600; women teachers, minimum, \$1,000, with increases of \$100 to a maximum of \$2,000; head clerk, minimum of \$900, with increases of \$50 to a maximum of \$1,200; clerks, minimum \$900, with increases of \$50 up to a maximum of \$1,100.

Supervisors—Cooking, minimum \$1,200, with increases of \$100 up to a maximum of \$1,500; sewing, minimum \$1,200, with increases of \$100 to a maximum of \$1,500; kindergarten, minimum \$1,200, maximum of \$1,700; writing, minimum \$1,200, maximum of \$1,500; drawing, minimum \$2,000, maximum of \$2,600; music, minimum, \$2,000, maximum of \$2,600; manual training, minimum \$2,000, maximum of \$2,600; physical training, minimum \$2,000, maximum of \$2,600; agriculture, minimum of \$2,000, maximum of \$2,600.

In order to make the schedule effective, it is provided that a teacher whose salary is \$3,000 or more may receive an increase of \$300; a teacher whose salary is now \$2,000 and less than \$3,000 may receive an increase of \$250; a teacher whose salary is \$1,500 and less than \$2,000 may receive an increase of \$225, and a teacher whose salary is now less than \$1,500 may receive an increase of \$200.

A teacher who has not reached the maximum may receive, in addition to the immediate increase, the regular increase when due as provided in the schedule.

A teacher who has taught at the present maximum for at least a year, ending July, 1919, may receive the annual increase at that date and annually thereafter until the new maximum is reached.

A teacher who has taught at the present maximum less than a year on July 1, 1919, may receive the annual increase in January, 1920, and annually thereafter until the new maximum is reached. No teacher may receive a salary in excess of these provisions.

(Concluded on Page 97)

TEACHERS' SALARIES

WORCESTER SALARY SCHEDULE.

The school board of Worcester, Mass., has adopted a revised schedule of teachers' salaries, together with amendments to the rules, making the salary provisions effective. The schedule is as follows:

Elementary Teachers—Preparatory, minimum \$675; with increases of \$75 up to a maximum of \$1,300; grade eight, minimum \$675, with increases of \$75 up to \$1,300; combination grades seven and eight, minimum \$675, with increases of \$75 up to \$1,275; grade seven, minimum \$675, with increases of \$75 up to \$1,250; grades six-two, minimum \$675, with increases of \$75 up to \$1,200; combination grades one and two, minimum \$675, with increases of \$75 up to a maximum of \$1,250; grade one, minimum \$675, with increases of \$75 up to a maximum of \$1,275; kindergarten, min-

CLASSIFIED WANTS

FOR SALE

A Wagonette in good condition. Has seating capacity for twelve passengers. Suitable for carrying school children in rural districts. Can be shipped to any part of the country. Price reasonable. Correspondence invited. W. H. Bacon, Supt. Schools, Westerly, Rhode Island.

MAPS

Geographical and Historical—We

Copy for this page must reach us at Milwaukee not later than the 15th, preceding the date of issue. All advertisements are guaranteed. The rate is 10 cents per word, per insertion, minimum of fifteen words accepted.

will send samples for examination on request. McConnell Map Company, 17 South Desplaines St., Chicago, Ill.

PAINT AND VARNISH REMOVER

Casmire Process—for school seat

cleaning, removes old varnish, paint dust and grime. Write today for further particulars and estimate of the cost of this method. Also tell us how many seats you wish to renovate. The National Wood Renovating Co., 319 East Eighth Street, Kansas City, Mo.

CATALOGS

Hansen's Clocks—For positive, punctual and lasting service, are the best known. They are easy to install and easy to manage. Write for a copy of our catalog today. Hansen Manufacturing Co., Princeton, Ind.

Pencil Catalog—Write for your copy today. Jos. Dixon Crucible Company, Dept. 31-SJ, Jersey City, N. J.

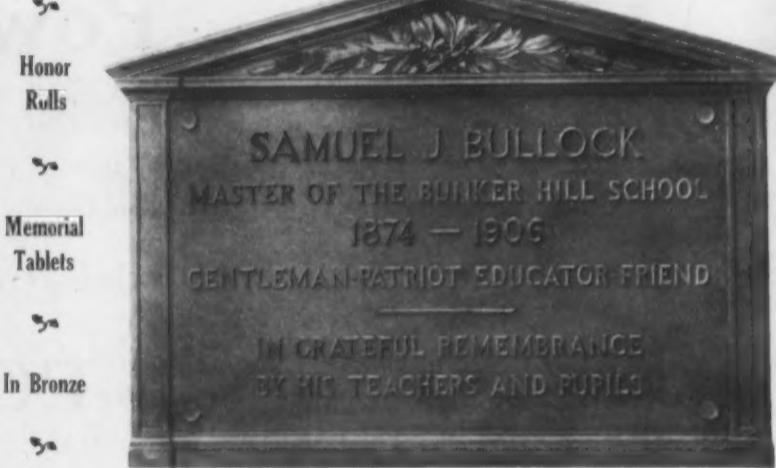


Bronze Tablets

In Honor of the Men Who Fought in the World War
Bronze Memorial Tablets, etc.

All to Special Design. Designs and Estimates Free.
Send for Free Illustrated Booklet.

Jno. Williams, Inc., Bronze Foundry
OFFICE: 559 WEST 27th ST., NEW YORK



Modeled, Cast and Finished by
Albert Russell and Sons Co. 125 Merrimack St. Newburyport, Mass.

Nelson's Steel Tubular Flag Staff

Equipped with Nelson Ball Bearing Halyard Carrier, so that flag flies free, instead of wrapping around flag staff.



Can be furnished in any height.
Write for prices and information how to erect.

N. O. Nelson Mfg. Co.
St. Louis, Mo. Edwardsville, Ill.

Branches and Selling Agencies | Los Angeles, Cal. Memphis, Tenn.
Pueblo, Colo. Houston, Tex.
Salt Lake City, Utah Birmingham, Ala.

Soiled Desks Are Not Spoiled Desks

It is not necessary to buy new desks every few years just because the tops are scratched, and the varnish partly worn off. Naturally this makes the desk poor in appearance. An Automatic Electric Surfacing Machine however, will quickly make the desks like new. The little Electric Machine rapidly and cheaply resurfaces your old desk making them like new.



Free trial offer. Ask about it.

WAYVELL CHAPPELL & CO.
Dept. F, 12 No. Market St. CHICAGO, ILL.

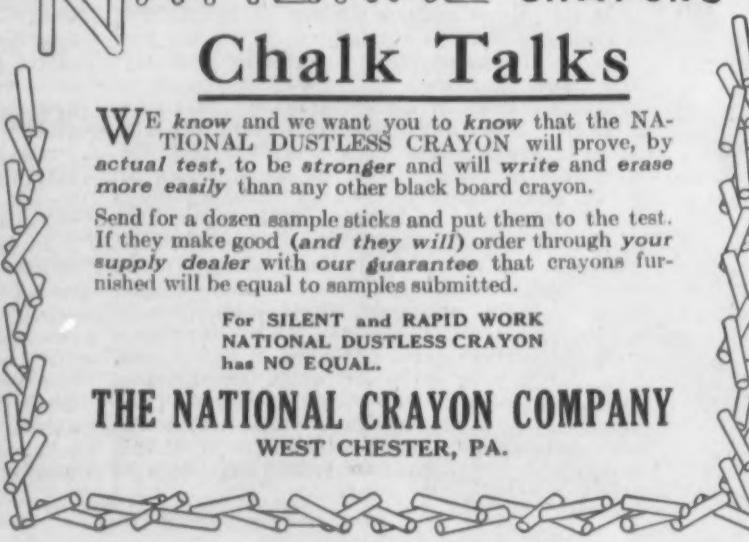
NATIONAL DUSTLESS CRAYONS Chalk Talks

WE know and we want you to know that the NATIONAL DUSTLESS CRAYON will prove, by actual test, to be stronger and will write and erase more easily than any other black board crayon.

Send for a dozen sample sticks and put them to the test. If they make good (and they will) order through your supply dealer with our guarantee that crayons furnished will be equal to samples submitted.

For SILENT and RAPID WORK
NATIONAL DUSTLESS CRAYON
has NO EQUAL.

THE NATIONAL CRAYON COMPANY
WEST CHESTER, PA.



A STEEL FLAG POLE WITH “OLD GLORY” FLYING IN THE BREEZE



Our steel flag pole is a permanent investment. It's made of galvanized high carbon steel, with the lower half filled with concrete. This makes the strength of the pole almost double that of the ordinary pole of the same diameter. The telescoping joints make the pole unusually strong.

Thousands of our poles were erected on school grounds in all sections of the country last year.

Folder S sent on request.

Factories: Newark and Milwaukee, Wis.

Newark Steel Post Company
Formerly “Milwaukee Steel Post Co.”
828 Broad Street, NEWARK, N.J.

Serve Your Pupils a Wholesome Lunch



The advantage of the school lunch room is no longer theory. It is a fact acknowledged by school authorities the country over. Our position as headquarters for lunch room equipment should commend us to your consideration when buying. You will find our goods and our service superior to others. Our experts will design both lunch room and kitchen to meet your special requirements. If your school now serves lunches you should have a copy of our catalog. It will guide you to economical purchases of lunch room equipment. No matter what your requirements may be, we can furnish just what you want at the price you want to pay.

Write for a Copy of Our Catalog Today



ALBERT PICK & COMPANY

208-220 WEST RANDOLPH STREET, CHICAGO



(Concluded from Page 95)

The school committee of Marblehead, Mass., has increased the salaries of all teachers \$200 a year to take effect February 12th. A similar increase of \$100 was given all the teachers in February, 1918. It has also increased the salaries of janitors fifty cents a day.

The salaries of the teachers of New Bedford, Mass., were raised 15 per cent on March 20th. The increases take effect September 1st.

Portland, Me. The board has raised the maximum salary of elementary teachers to \$900 and \$1,000 after ten years' service have been completed, and that of high school teachers by an increase of \$200 per annum. The annual increase of grade teachers will be \$100.

Ventnor City, N. J. The board has raised the beginning salary of five teachers from \$1,000 to \$1,500.

Livingston, Mont. The salaries of teachers for the coming year have been increased. The minimum for normal graduates with experience will be \$105 per month; maximum, third year service, \$125 per month. This applies to regular grade teachers. The term is 38 weeks. Principals will be paid as follows: Four-room school \$1,200; six-room school, \$1,300; ten-room school, \$1,350; twelve room (grammar grades) \$1,600. The work and time of service of these principals vary.

The school board at Sault Ste. Marie, Mich., has adopted a salary schedule providing for four classes of teachers, namely, high school, junior high school, elementary grades and cadets. The minimum salary for the first group has been fixed at \$1,000 and the maximum at \$1,800. For the second, a minimum of \$950 and a maximum of \$1,500, have been fixed, for the third, a minimum of \$850 and a maximum of \$1,200, and for the fourth a minimum of \$250 and a maximum of \$350.

Below are reproduced the rules which have been adopted to govern the appointment of teachers, the fixing of salaries and increases, and the recognition of exceptional work on the part of teachers.

2. Teachers who have had teaching experience outside the city may, in the discretion of the board of education and upon the recommendation

of the superintendent, receive an initial salary above the minimum, depending upon the nature and amount of such experience.

3. No person who is not employed in the public schools at the present time shall hereafter be eligible to appointment as teacher in grades one to eight inclusive unless a graduate of: First, a Michigan state normal or a normal school of equal rank with a Michigan state normal, on a life certificate course; second, a graduate of the University of Michigan or of a college of equal rank with the University of Michigan on a four year course; third, or a holder of a life certificate from the State Board of Education.

4. No person who is not employed in the high school at the present time shall hereafter be eligible to appointment in grades nine to twelve who is not a graduate of the University of Michigan or of a college of equal rank with the University of Michigan, on a four year course; or the holder of a life certificate from the State Board of Education.

5. It shall be the policy of the board of education to engage experienced teachers in so far as the same may be practicable.

6. The minimum annual increase shall be \$50. The maximum will be determined on merit.

7. Annual increases shall be based on teaching merit, professional growth, length of service, and such other factors as go to make up an efficient teacher.

8. Teachers now in the system who are receiving an annual salary less than the minimum shall be automatically raised to the minimum and given such additional increase as they may merit.

9. A post maximum salary can be attained but only in the most exceptional cases.

Ware, Mass. The school board has given all the teachers increases of \$100. The maximum for the grade teachers is \$1,000 and for the high school \$1,300.

Evansville, Ind. The school board has denied a request of the city teachers for increases of \$100. The board's action was based on the fact that money for the operation of the schools has been appropriated and is barely sufficient to meet present demands. The board intimated that it might be possible to grant increases next fall.

A LETTER FOR SCHOOL BOARDS.

The following letter was addressed by a teacher to the publisher of a New England educational magazine. It contains some points that should cause members of school boards to reflect on the salary problem.

"Please discontinue my subscription to the Magazine. The increase in the cost of living compels me to take this step, which I much regret. The impossibility of making a pre-war salary cover present needs is driving many teachers out of the profession. If School Boards are so indifferent to the welfare of the teachers that they refuse them a living wage, teachers cannot be expected to spend any part of their meagre salary on professional betterment. I think this is a subject the educational papers should push vigorously. Already School Boards are obliged to fill vacancies with untrained teachers, and the injustice meted out to the teachers during this period of high prices is causing a spirit of unrest and dissatisfaction that will certainly militate against best work. Only the teacher's devotion to her chosen work, the knowledge that the children are the ones who will have to pay the penalty if she shirks, keeps a teacher up to her best, for she is obliged to feel, in fact, she knows, that her work is absolutely unappreciated."

DUBUQUE HEALTH SURVEY.

The problem of children's health looms up as one of the large educational movements of the day and a nation-wide campaign has been undertaken to protect the health of children and to prevent disease, and thus to develop a strong, sturdy and physically, as well as mentally, efficient nation.

In connection with the general movement throughout the country, a health survey was conducted at Dubuque, Ia., in March. The survey was conducted by means of a questionnaire covering the essential facts regarding the health status and habits of school children and was in charge of Supt. James H. Harris.

The survey had for its purpose the securing of specific and definite information as to the health habits and characteristics of the individual child.

(Concluded on Page 99)



WE SPECIALIZE

IN



STEEL TUBING FLAG POLES

EASILY HANDLED AT MINIMUM CARRYING CHARGES

Write for Illustrated Net Prices

THE CHICAGO FLAG & DECORATING CO.

Manufacturers

U. S. FLAGS, ALLIED FLAGS
AND
DECORATIONS

1315-1325 WABASH AVE., - CHICAGO, ILL.



PICTURE A NEAT SCHOOL MA'AM,



—with a kind pleasant smile, making a chap feel happy that he has done his lessons right, wanting to ask her if she would please let him clean the Erasers with a Simplex. Order at once—Electric or Hand Driven—and assist in the great Health Drive now inaugurated in the Schools.

For sale by all of the 120 School Supply Houses.

JAMES LYNN COMPANY

14 East Jackson Blvd., CHICAGO, ILL.

The electric shown above is driven by a universal motor, that will operate on any and all electric currents. Cleans 100 erasers thoroly in 15 minutes. The only sanitary and hygienic eraser cleaner made.

Modern Schools Demand a Sanitary Cleaning System

THE Spencer Central Cleaning System solves the schoolhouse cleaning problem. It is no longer necessary to endanger the health of teachers and pupils by filling the air with dust and all the impurities that go with it, when cleaning a school building. The Spencer System cleans rapidly and thoroughly, drawing all dust and dirt entirely out of the rooms being cleaned.

WRITE FOR CATALOG

The Spencer Turbine Company
Department A HARTFORD, CONN.

LET US HELP YOU PLAN YOUR PLAYGROUND

HAS NO EQUAL



Patented

Cast Iron Spring Improvement Perfects This Teeter-Totter Safety

We carry a complete line of the most popular Playground Apparatus on the market.

Tothill's Playground Apparatus

are durable, strong and above all perfectly safe. Now used in many of the largest parks and school playgrounds in the country. We can refer you to them.

We guarantee every piece of Playground Apparatus we make.

Write today for our catalog on "Playground Apparatus."

W. S. TOTHILL, (Established 1878) 1807 Webster Ave., Chicago, Ill.



Badger No. 1 Bulletin



WE have something special for you for 30 days only—on Ink, Library Paste, Paper Towels, Toilet Paper, Paper Towel Fixtures, Toilet Paper Fixtures, and Scrubbing Soap. Orders for August or September 1st delivery accepted at these prices. Samples and quotations sent on request.

30 DAYS ONLY ON THIS OFFER



BADGER BRUSH COMPANY
655-657 East Water St. MILWAUKEE, WIS.



FLAGS

"Old Glory"

ALL NATIONS—ALL SIZES
FLAG POLES AND
ACCESSORIESEUREKA
BUNTING"O.-G."
COTTONTHERE IS NO BETTER
FLAG MADE THAN OUR
"Old Glory"

Buy the flag with either of our "trade mark" brands as shown above. They are marks of "value." Our "O. G." Cotton is fast color and a superior flag cloth, suitable for interior purposes. Can be used outside, but not as serviceable as our "EUREKA" Bunting, an imitation wool, fast color, moth-proof bunting, with a durability equal to wool at about one-half the cost. Meets government specifications and requirements both in count and tensile strength. Our "Old Glory" wool is the BEST MADE flag with the BEST MATERIALS. All our flags are made for special school service. You can get them from your jobber or dealer.

SILK FLAGS—SEWED AND PRINTED—Paper Flowers and Decorations
We Rent Flags—We Repair Flags—Everything Patriotic

"Old Glory" Manufacturing Co.

24-28 S. Wells Street CHICAGO

Phone Franklin 5030

A FRONT RANK

TRADE NAME REGISTERED
School Heater and Ventilator

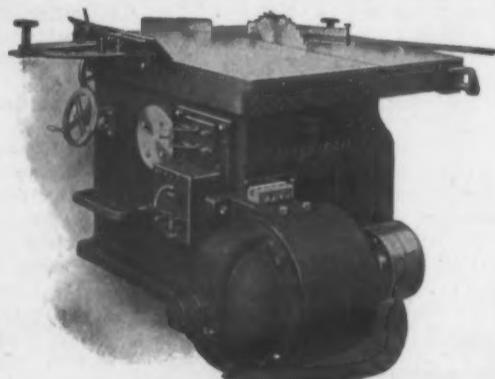
will not only assure more comfort and better health for both pupils and teacher in your school; it will

Save Your Fuel

and repair bills, and run satisfactorily with a very minimum of attention and trouble. The best schools are installing the FRONT RANK. Get in line.

If your dealer doesn't handle the FRONT RANK write for illustrated literature.

Haynes-Langenberg Mfg. Co.
4048 Forest Park Blvd. ST. LOUIS, MO.



IF IN DOUBT

consult the School Authorities of Buffalo, Jersey City, Memphis, San Francisco, Winnipeg, Rochester, and a hundred other cities we could name if space permitted and learn what they think of American Woodworking Machinery for Manual Training Work.

Every School Board should have our catalog on file.

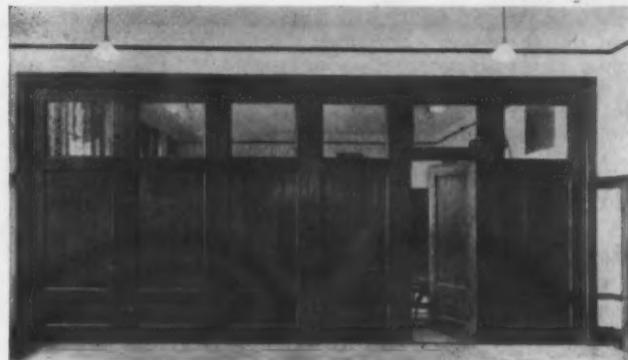
Let us send you a copy.

American Wood Working Machinery Co.

591 Lyell Ave., Rochester, N. Y.

WILSON FOLDING PARTITIONS

make it possible to provide for increased facilities in your school building.



PARTITION DRAWN OUT



PARTITION FOLDED

Watchung School, Montclair, N. J.—Starrett & Van Vleck, Architects

Wilson Folding Partitions are used in schools, churches, or any building where it is desired to divide large rooms into smaller units.

They are easy to operate.

They do not require overhead support.

They harmonize with existing trim.

They are provided with connecting doors whenever required.

SEND FOR FURTHER INFORMATION TO

THE J. G. WILSON CORPORATION
8 W. 40th STREET, NEW YORK

Manufacturers of Rolling Partitions, Hygienic Wardrobes, Diffuselite Blinds, Rolling Steel Doors, Etc.

(Concluded from Page 97)

It aimed to obtain facts and to build upon these facts a constructive program for health instruction.

Among the benefits and values attributed to the survey, the following may be noted:

1. It results in the discovery of many physical defects and many unhygienic habits hitherto unknown and unsuspected.

2. It furnishes the school nurses and teachers with concrete and first-hand information regarding each individual child, and makes it possible for them to concentrate their attention upon the problems requiring immediate attention. In other words, it materially lessens dissipation of energy and waste of time.

3. It tends to educate pupils, parents and the public at large in the underlying importance of health and the value of preventive measures. It stimulates interest in and alertness toward the conditions and habits necessary to healthful living and physical soundness.

4. The survey, if properly utilized and followed up, inevitably promotes the health, well-being and efficiency of the children.

As an indication of the points covered by the survey, the following questions are quoted as typical of the facts sought for:

Have you ever had any serious sickness? If so, what was it?

Do you have your bed room windows open or shut at night?

Do you own and use a tooth brush?

Do you sometimes have toothache? Have you ever been to a dentist?

Do you have headache often?

Can you read easily what is written on the blackboard? Does the print blur in your book?

Do you ever have earache?

Can you hear easily what the teacher says?

Do you have sore throat often?

Do you drink coffee? How much?

Do you drink tea? How much?

Do you work any out of school hours? What kind and how much?

A LONGER TENURE FOR TEACHERS.

A plea for a longer tenure for teachers and for increased pay upon proven professional ability has recently been made by Prof. A. W. Burr of Beloit College, Beloit, Wis. Prof. Burr in writing on the subject of tenure, discourages the practice of employing teachers on a yearly contract on the basis that it is bad not only for the teachers themselves but also for the improvement of their professional service.

The one-year term, in the opinion of Prof. Burr, is not fair to the teacher who must each year run the gauntlet of the moods and personal peculiarities of the principal, the board and influential parents. Again, a teacher must begin soon after the year is half over to look for work and her service to the community and to the school may seem to be temporary and half-hearted. Little of a constructive nature can be worked out and opportunities are lacking for the best work.

Another bad feature is the development of the mercenary spirit. The success of the year's work is measured by the raise of \$5 a month or the failure to secure the raise. Opening of the question every year leads to a yearly struggle for higher salaries and larger cities. Good pay should be given without grudging and for the best service of the schools. Teachers who know the value of their calling and the worth of their services rebel at this treatment.

The annual migration of teachers is bad for the teachers but worse for the schools. The employing of a new teacher means getting used to new individuals, new methods, and new personalities instead of getting down to work immediately. Frequent changes of teachers encourage insubordination and foster habits detrimental to good school morale and classroom order.

A good teacher is placed at a disadvantage if she must build her year's work upon the half-done work of a previous migrating teacher. A poor teacher can lay her poor results to the teacher before her, whether the teacher was good or bad.

In conclusion, Mr. Burr points to the custom in use in business whereby experienced and trusted employees are retained indefinitely so long as the

relations of employer and employee are satisfactory. If businessmen do not and cannot manage their personal interests in this way, why do they manage the schools so differently? Mr. Burr suggests a remedy be applied thru a rule permitting boards to offer a teacher of two years' proven efficiency and acceptable personality, a contract for three years at an increase in salary. The contract would recognize the teacher's worth to the school and the community and a three months' notice for termination might be required. An exception would be permitted in the case of a teacher who might be compelled to stop teaching for necessary reasons.

DEATH OF DR. DUTTON.

Dr. Samuel T. Dutton, professor-emeritus of Teachers College, New York City, died at his home on March 28th of an attack of heart failure. Dr. Dutton was 70 years old.

Samuel Train Dutton was born in New Hampshire in 1849. He was a graduate of Yale College, having been granted the degree of A. B. in 1873 and A. M. in 1890. After his graduation from college, Dr. Dutton was in charge of a school at South Norwalk, Conn. He was principal of Eaton School, New Haven, Conn., from 1878 to 1882 and superintendent of schools of New Haven from 1882 to 1890. He then went to Brookline, Mass., where he remained until 1900, when he became professor of school administration and superintendent of schools at Teachers College. In 1915 he was appointed professor-emeritus of the College.

Dr. Dutton was a lecturer on pedagogy for Harvard University, University of Chicago and Boston University. He was the author of a number of texts on educational subjects, one of the best known being Dutton & Sneddon's "Administration of Public Education in the United States."

Dr. Dutton was an earnest student in social problems and was an enthusiastic worker for world peace. He held the office of secretary of the New York Peace Society, was chairman of the National Committee on Arbitration and Peace Congress, and was a trustee of the World Peace Foundation.

School Board Journal

AFTER THE MEETING



GOOD SUGGESTION.

The city of Portland, Maine, boasts a splendid new high school which has been the source of much satisfaction to the educational people of the city. The building has been frequently visited, since its dedication in January, by school authorities who are seeking information for application to local building projects.

One such delegation spent a long, profitable morning at the school and landed finally in a restaurant pretty well fatigued. A few hours remained before train time, and the youngest member of the committee suggested that they go sightseeing.

"Longfellow was born in this town," he said. "Let's go out to his home."

"How far is it?" asked another member, a fat, elderly contractor.

"Not more than nine or ten blocks," answered the young man. "We can walk there in ten minutes."

"Well, I'm with you," sighed the contractor. "But suppose you telephone first, and find out whether he's at home."

Music by the Peck.

At the beginning of a musical exercise was the sign $\frac{3}{4}$.

Teacher: "What does the number 3 tell us?"

Pupil (age 7): "There are three quarts of notes in a measure."

Easy.

Miss Wilkins, the primary teacher, was instructing her small charges.

"Name one thing of importance that did not exist a hundred years ago," said the teacher.

Ralph Franklin, an only child, who was seated in the front row, promptly arose and answered:

"Me."

The Lesser of Two Evils.

"I'll be mighty glad when I start to school," announced Willie one day.

"Why will you be glad, dear?" asked his mother in surprise.

"Well, then you an' papa will have to cut out



Family Complications.

School Visitor: "How is it your little boy is so often away from school, Mrs. Jones?"

Mrs. Jones: "Well, miss, his adenoids 'as been very bad, and what with them and 'is sister gettin' married, and 'is father comin' 'ome on leave it's been a regular chapter of accidents."

this spellin' of words that you don't want me to hear."

On Johnny's first day at school he was given a registration card on which his mother was to write his birth record. The following day he arrived tardy and without the registration slip.

"Johnny," said the teacher, "you must bring an excuse for being tardy, and don't forget the slip about when you were born."

All out of breath next day Johnny rushed in, holding a note from his mother.

"Teacher," he gasped, "I brought the one about being tardy, but I forgot my excuse about being born."

Defining Parents.

Little Alfred was asked to write a composition on parents, and wrote this:

Parents are things which boys have to look after them. Most girls have parents. Parents consist of pas and mas. Pas talk a good deal about what they are going to do, but it's mostly the mas that make you mind.

Very Much There.

"Which is the most delicate of the senses?" asked the teacher.

"The touch," answered Johnnie.

"How's that?" asked the teacher.

"Well," said Johnnie, "when you sit on a pin, you can't see it, you can't hear it, you can't taste it, but you know that it's there."

Double-ended Education.

Jimmy did not come up to his father's expectations in regard to his studies at school and an explanation was demanded.

"Why is it," inquired the irate parent, "that you are at the bottom of the class?"

"I can't see that it makes any difference whether I am at the top or the bottom," replied Jimmy pacifically. "You know they teach just the same at both ends."

A teacher in a public school was instructing a youthful class in English when she paused and turned to a small boy named Jimmy Brown.

"James," said she, "write on the board, 'Richard can ride the mule if he wants to.'"

This Jimmy proceeded to do to the satisfaction of all concerned.

"Now, then," continued the teacher when Jimmy had returned to his place, "can you find a better form for that sentence?"

"Yes, ma'am," was the prompt response of Jimmy. "Richard can ride the mule if the mule wants him to."

His Answer.

The teacher had been reading to the class about the great forests of America.

"And now, boys," she announced, "which one of you can tell me the pine that has the longest and sharpest needles?"

Up went a hand in the front row.

"Well, Tommy?"

"The porcupine!"—Tit-Bits.

Why Patrick Henry Said It.

A schoolboy's composition on Patrick Henry contained the following gem: "Patrick was not a very bright boy. He had blue eyes and light hair. He got married and then said, 'Give me liberty or give me death.'"—Harper's.

The following extracts were taken from Fifth Grade hygiene papers by one of the supervising principals:

"Alcohol makes the brain bulb."

"Fruits contain much mineral and furnishing matter."

"Fruits are of use in breakfast and dinner time."

"He should always stay near the floor smelling it."

"Food is changed into juice called saliva."—Hawaiian Educational Review.

Hygiene.

A visitor, seeing on the hall table of a rural school a solitary toothbrush in a glass, asked the teacher what that brush was for, says the Outlook. "Oh," replied the teacher, "we are so interested in hygiene here that we make every child brush his teeth when he comes to school each morning."—Every Week.

The Teacher's Theory Shattered.

"Children," said the teacher to his pupils, "you should be able to do anything equally well with either hand. With a little practice you will find it just as easy to do anything with one hand as it is with the other."

"Is it?" inquired the urchin at the foot of the class. "Let's see you put your left hand in the right hand pocket of your trousers."—Ladies' Home Journal.

BUYERS' NEWS COLUMN

RECORDS FIFTIETH ANNIVERSARY.

The Holden Patent Book Cover Company of Springfield, Mass., is celebrating this year the fiftieth anniversary of the invention and first manufacture of the Holden book cover. The first covers were invented by Mr. Holden in 1869 while he was owner of a book and stationery house in Dayton, Ohio, and was interested in the preservation of school books owned by children in the local schools. His purpose was to make a cover which would be readily adaptable to books of varying sizes, and at the same time, could be manufactured at a low price. The first adjustable covers were an immediate success in a small way. This success has constantly grown in distribution and sale since their first offering to the school trade. Mr. Holden, who died in 1913, subsequently brought out a noiseless slate and made other inventions along the line of labor-saving and hygienic school goods.

The Holden Book Cover Company is now conducted by Mr. Miles C. Holden and includes in its products a large list of well known special goods and books for school use.

OLIVER MACHINERY COMPANY OPENS NEW OFFICE.

The Oliver Machinery Company of Grand Rapids, Mich., has opened a large branch office at 810 Railway Exchange Building, Jackson and Michigan Blvds., Chicago. The office in the new location has been made necessary because of the increase in the manufacture of school equipment and the growth of the business of the Oliver Company. The Chicago office will be in charge of Mr. G. C. Conklin, who has for many years been connected with the factory at Grand Rapids. Mr. George C. Ramer will be in charge of the sales force.

School officials desiring information on pattern shop equipment, wood working machinery, engine lathes, as well as equipment for industrial and vocational schools may communicate with the firm at the Chicago office.

McCONNELL REORGANIZES BUSINESS.

The McConnell School Supply Company, formerly located at Philadelphia, Pa., has been reorganized as the McConnell Map Company, with office and display rooms at 17 South Desplaines St., Chicago. The firm is making a specialty of geographical and historical maps.

QUESTIONS AND ANSWERS

This Department is conducted as a personal service for the readers of the Journal. Questions on school board problems, especially on the physical side of school administration, will be answered as promptly as possible by the department editors.

Only such questions will be printed as seem to be of general interest. Address correspondence to Editor, School Board Journal, Milwaukee, Wis.

Carnegie Library Plans.

45. Q:—Could you direct me to a floor plan of a small Carnegie Library Building?—B. B. D.

A:—For illustrations and sketches, consult Koch's "Book of Carnegie Libraries," H. W. Wilson Co., New York. \$3.50.

Other books on library buildings in general are *Cleveland Public Library*, Program of Competition for Proposed Building; *Library Building Plans*, W. R. Eastman, 10 cents, A. L. A., Chicago; *Index and Plans of Library Buildings*, 10 cents, Boston Public Library; *Small Library Buildings*, League of Library Commission, \$1.50, A. L. A., Chicago; *Poole's Construction of Library Buildings*, 5 cents, U. S. Bureau of Education, Washington.

C. F. A.
L. O. A.
Aeroa...
Wal...
Moline
F. S. Gillis
A. Kanes
A. Peabody
A. N. Heywo...
Super...
Steel
Theo.
J. B. BL.
N. Y. Bever...
E. W. Weber
HL.
Keena...
Penn...
Nature...
Intern...
Smith
Holder...
Peckha...
Gregg...
D. C. Isaac...
Silver...
Arthur...
Macm...
A. N. Gian...
Educat...
Christo...
D. Ap...
Badger...
CA.
Albert...
Cottrell...
Weber...
Dall S...
Centra...
Stand...
CLOSE...
Hygile...
Blaney...
America...
Peckha...
E. W. Weber...
Nation...
Samuel...
DES...
Wayne...
Union...
W. M. Metrop...
Theo...
Central...
West...
DOM...
E. H. Kewau...
C. Chr...
Leonard...
Federal...
Albert...
If...

School Goods Directory

ACCOUNTING FORMS

C. F. Williams & Son, Inc.

ADJUSTABLE WINDOW SHADES

Oliver C. Steele Mfg. Co.
L. O. Draper Shade Co.
Aeroshade Company
Walger Awning Co.
Perennial Shade Company

AIR CONDITIONING APPARATUS

American Blower Co.
Beery Engineering Co.
Moline Heat.

ASH HOISTS

F. S. Payne Co.
Gillis & Geoghegan

AUDITORIUM SCENERY

Kansas City Scenic Company

AUDITORIUM SEATING

Pembury School Furniture Co.
American Seating Co.
N. J. School Furniture Co.
Heywood Bros. & Wakefield Co.
Empire Seating Co.
Superior Seating Co.
Steel Furniture Co.
Theo. Kundtz Co.

BELLS

J. B. Foote Foundry Co.
BLACKBOARDS—COMPOSITION

N. Y. Silicate Book Slate Co.
Beaver Board Companies
E. W. A. Rowles Co.
Weber Costello Co.

BLACKBOARDS—NATURAL SLATE

Keenan Structural Slate Co.
Penna. Struct. Slate Co.
Natural Slate Blackboard Co.

BOILERS

International Heater Co.
Smith System Heating Co.

BOOK COVERS

Holden Patent Book Cover Co.
Peckham, Little & Co.

BOOK PUBLISHERS

Gregg Publishing Company
D. C. Heath & Co.
Isaac Pitman & Sons
Silver, Burdett & Co.
American Book Co.
Arthur J. Barnes Pub. Co.
Macmillan Company
A. N. Palmer Co.
Ginn & Company
Educational Publishing Company
Christopher Sower Co.
D. Appleton & Company.
A. J. Barnes Publishing Co.

BRUSHES

Badger Brush Company
CAFETERIA EQUIPMENT

Albert Pick & Co.

CAPS AND GOWNS

Cotrell & Leonard

CHARTS

Weber Costello Co.

CHEMICAL CLOSETS.

Dall Steel Products Co.

CHEMICALS

Central Scientific Co.

CLOCKS

Standard Electric Time Co.

CLOSET BOWL CLEANSERS

Hygienic Products Co.

CRAYONS

Binney & Smith
American Crayon Co.
Peckham, Little & Co.
E. W. A. Rowles Co.
Weber Costello Co.
National Crayon Co.

DEAFENING QUILT

Samuel Cabot

DESK SURFACING MACHINE

Waywell Chappell & Co.

DICTIONARY STANDS

Union School Furnishing Co.

DIPLOMAS

W. M. Welch Mfg. Co.
Metropolitan Supply Co.

DISINFECTANTS

Theo. B. Robertson Products Co.
Central City Chemical Co.
West Disinfectant Co.

DOMESTIC SCIENCE EQUIPMENT

E. H. Sheldon & Co.
Keweenaw Mfg. Co.
C. Christiansen
Leonard Peterson & Co.
Federal Equipment Co.
Albert Pick & Co.

DOOR CHECKS

Norton Door Check Co.

DRAFTING ROOM FURNITURE

E. H. Sheldon & Co.
C. Christiansen

DRAWING MATERIALS

Devos & Raynolds

DRINKING FOUNTAINS

L. Wolff Mfg. Co.
N. O. Nelson Mfg. Co.
Rundell-Spence Mfg. Co.

ELECTRIC COOKING EQUIPMENTS

Edison Electric Appliance Co., Inc.

ELEVATORS

F. S. Payne Co.

ENGRAVINGS

Premier Eng. Co.

ERASERS

Weber Costello Co.

ERASER CLEANERS

Weber Costello Co.

EXIT DEVICES

Vonnegut Hardware Co.

FIRE ESCAPES—SPIRAL

Standard Conveyor Co.

FIRE EXTINGUISHERS

McFarland-Hyde Co.

FIRE ALARM SYSTEMS

Stand. Electric Time Co.

FIRE EXIT LATCHES

Vonnegut Hardware Co.

FLAG POLES

Newark Steel Post Co.

FLOOR BRUSHES.

Milwaukee Dustless Brush Co.

FLOOR DEAFENING

Samuel Cabot

FOLDING PARTITIONS

Jas. G. Wilson Corp.

FUMIGATORS

Central City Chemical Co.

FURNACES

Haynes-Langenberg Mfg. Co.

FURNITURE

American Seating Co.

GLOBES

Weber Costello Co.

GRAPHOPHONES

Columbia Graphophone Co.

GYMNASIUM APPARATUS

Fred Medart Mfg. Co.

HEATERS

H. Channon Co.

INK

E. W. A. Rowles Co.

INKS—DRAFTING

Devos & Raynolds

INKS, PASTE

Commercial Paste Co.

INK WELLS

Squires Inkwell Co.

JANITORS' SUPPLIES

Theo. B. Robertson Products Co.

Palmolive Company

LABORATORY FURNITURE

Keweenaw Mfg. Co.

Leonard Peterson & Co.

Federal Equipment Co.

E. H. Sheldon & Co.

LABORATORY SUPPLIES

Central Scientific Co.

W. M. Welch Mfg. Co.

LIBRARY SHELVING

Durand Steel Locker Co.

LIGHTING FIXTURES

Luminous Unit Co.

Beardslee Chandelier Mfg. Co.

LIQUID FLOOR HARDENER

L. Sonneborn Sons.

LIQUID SOAP

Palmolive Company

LOCKERS

Federal Steel Fixture Co.

Berger Mfg. Co.

Durand Steel Locker Co.

Fred Medart Mfg. Co.

Lyon Metallic Co.

MACHINERY

Oliver Machinery Co.

Amer. Wood Work. Mach. Co.

MANUAL TRAINING EQUIPMENT

H. Channon Co.

E. H. Sheldon & Co.

C. Christiansen

Keweenaw Mfg. Co.

Federal Equipment Co.

Oliver Machinery Co.

MAPS

Weber Costello Co.

MEMORIAL TABLETS

John Williams, Inc.

Albert Russell & Sons Co.

MICROSCOPES

Bausch & Lomb Opt. Co.

Spencer Lens Company

MOTION PICTURE MACHINES

Nicholas Power Co.

Enterprise Optical Mfg. Co.

The DeVry Corporation

Pathescope Company of America

Community Motion Picture Bureau

FLAGS

The Chicago Flag & Decorat. Co.

Annin & Co.

John G. Detra & Co.

"Old Glory" Mfg. Co.

FLOOR BRUSHES.

Milwaukee Dustless Brush Co.

FLOOR DEAFENING

Billings-Chaplin Co.

Binney & Smith Co.

Bossert & Sons, Louis

Cabot, Samuel

4th Cover

Carpenter Mfg. Co., The R. F.

Central City Chemical Co.

Central Scientific Co.

Channon Co., H.

Chicago Flag & Decorat. Co., The.

Chicago Scale Co.

Christiansen, C.

Clow & Sons, James B.

Dill Steel Products Co.

Devos & Raynolds Co.

DeVry Corp., The.

Dixon Crucible Co., Jos.

Draper Shade Co., Luther O.

Durand Steel Locker Co.

Edison Electric Appliance Co.

Educational Exhibit Co.

Educational Publishing Co.

Empire Seating Co.

2nd Cover

Enterprise Optical Mfg. Co.

Esterbrook Steel Pen Co.

Faber Co., Who-hair!

Federal Equipment Co., The.

LIBRARY SHELVING

Peerless Unit Vent. Co.

Foote Foundry Co., J. B.

Gillis & Geoghegan.

4 & 60

Ginn & Company.

Gregg Publishing Co.

Hamilton Mfg. Co.

Hansen Mfg. Co., The.

Hartshorn Co., Stewart</p

NEW DIXIE SCHOOLS HAVE MODERN EQUIPMENT

In the marked improvement of Southern schools during recent years, one fact is very noticeable—the keen appreciation of the value of such useful equipment as electric time systems, interconnecting telephones and automatic fire alarm.

A large number of the most modern schools in the South are now equipped with "Standard" Electric Time Systems because their reputation for reliability and satisfactory operation have made them the choice of those seeking the best.

Write today for catalog or other information on "Standard" Electric Time Systems and Fire Alarm Equipment

The Standard Electric Time Company

SPRINGFIELD, MASS.

BRANCHES

261 FRANKLIN STREET, BOSTON, MASS.

50 CHURCH STREET, NEW YORK, N. Y.

461 MARKET STREET, SAN FRANCISCO, CAL.

MONADNOCK BUILDING, CHICAGO, ILL.

BROWN MARX BLDG., BIRMINGHAM, ALA.

ARCADE BUILDING, COLUMBUS, OHIO

ESSEX BUILDING, MINNEAPOLIS, MINN.



STEPHEN D. LEE HIGH SCHOOL, COLUMBUS, MISS.
EQUIPPED WITH STANDARD ELECTRIC TIME SYSTEM



WHEN discussing the plans for your school with your Architect, don't forget to mention "*Austral Windows*".

They are the *last word in window construction* and *their cost is no more than that of an ordinary box frame window*.

Ventilation and control of light are two most essential features in modern Schoolrooms.

Write for our School Catalogue and pamphlet on "Better Classroom Vitality"

AUSTRAL WINDOW COMPANY
101 Park Avenue
New York City



HIGH SCHOOL, GRANTWOOD, NEW JERSEY
Ernest Stibley, Architect, Palisade, N. J.
Deadened with Cabot's Quilt

"Next to light and ventilation the most important item of school-house construction is sound-proof floors and partitions".

CABOT'S DEAFENING "QUILT"

Is the scientific and standard deadener. Sound, insect and vermin-proof, uninflammable and sanitary.

Send for samples and special book on school-house deadening

SAMUEL CABOT, Inc., Sole Manufacturers
BOSTON, MASS., U. S. A.
1133 Broadway, New York
24 W. Kinzie St., Chicago
BEWARE OF UNSANITARY IMITATIONS